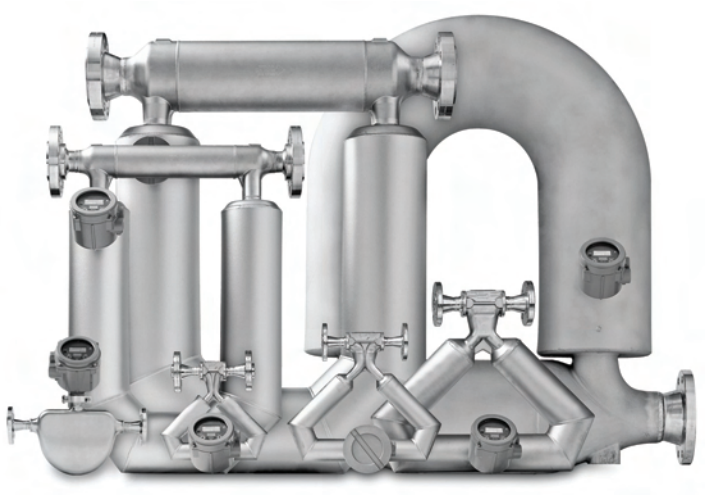
Product Data Sheet
PS-00374, Rev. S
September 2011

Micro Motion® ELITE® Coriolis Flow and Density Meters

Micro Motion® ELITE® Coriolis meters are the leading precision flow and density measurement solutions. ELITE meters offer the most accurate and repeatable measurement available for liquids, gases, or slurries.



Best precision flow and density measurement

- Unique design delivers unparalleled measurement sensitivity and stability
- Guarantees consistent, reliable performance over the widest flow range
- Smart Meter Verification for quick, complete meter diagnosis without process interruption.
- 2-wire loop-powered option for installation simplification

Superior performance in the most challenging applications

- Industry standard for custody transfer and critical process control
- Best two-phase flow capability for batching, loading, and entrained air applications
- Immune to fluid, process, or environmental effects for superb measurement confidence

ELITE®	**Peak performance Coriolis meter**
ELITE HC	Peak performance high capacity meter
F-Series	High performance compact drainable Coriolis meter
H-Series	Hygienic compact drainable Coriolis meter
T-Series	Straight tube full-bore Coriolis meter
R-Series	General purpose flow-only Coriolis meter
LF-Series	Extreme low-flow Coriolis meter

Micro Motion®

EMERSON™
Process Management

Micro Motion ELITE flow and density meters

Micro Motion Coriolis meters meet a vast range of application needs, ranging from extreme low-flow up to high-flow, high-capacity lines. Cryogenic, hygienic, high-temperature, and high-pressure—Micro Motion meters can handle them all. Micro Motion meters are available with a variety of wetted parts to ensure the best material compatibility. Now with the industry's only 2-wire Coriolis option, Micro Motion provides unsurpassed simplicity of installation and application flexibility.

Coriolis meters. Coriolis meters offer dramatic benefits over traditional volumetric measurement technologies. Coriolis meters:

- Deliver accurate and repeatable process data over a wide range of flow rates and process conditions.
- Provide direct inline measurement of mass flow and density, and also measure volume flow and temperature—all from a single device.
- Have no moving parts, so maintenance costs are minimal.
- Have no requirements for flow conditioning or straight pipe runs, so installation is simplified and less expensive.
- Provide advanced diagnostic tools for both the meter and the process.

ELITE Coriolis meters. Micro Motion ELITE meters are the leading meters for precision flow and density measurement. ELITE meters offer the most accurate measurement available for virtually any process fluid, while exhibiting exceptionally low pressure drop. Every ELITE meter features standard secondary containment, and is available with stainless steel or nickel-alloy wetted parts and a wide variety of process connections to meet your every need.

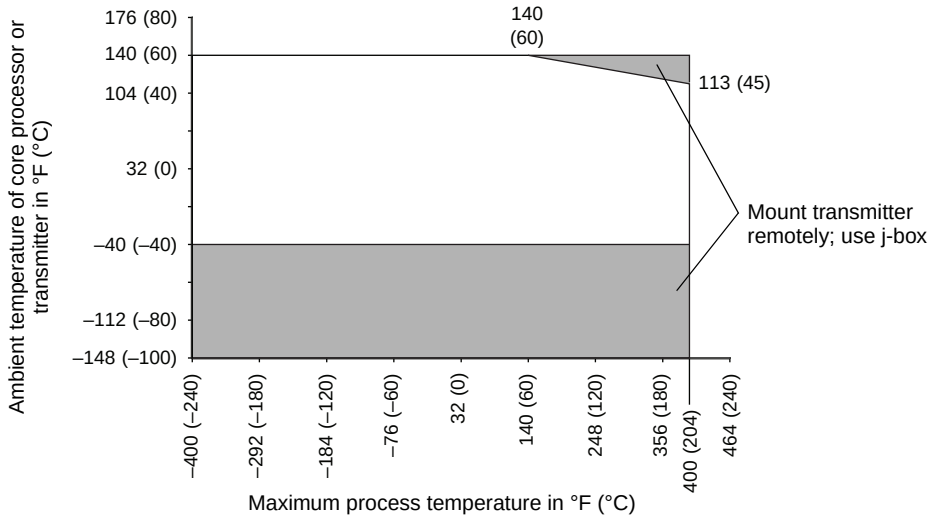
Now with Smart Meter Verification, ELITE delivers the best in measurement and ease of use for critical applications. ELITE meters offer the best measurement performance for mass, density, and volume, regardless of process or environmental conditions. ELITE meters provide measurement capability for two-phase flow, liquid, and gas custody transfer, and process conditions from –400 °F (–240 °C) to 662 °F (350 °C).

Contents

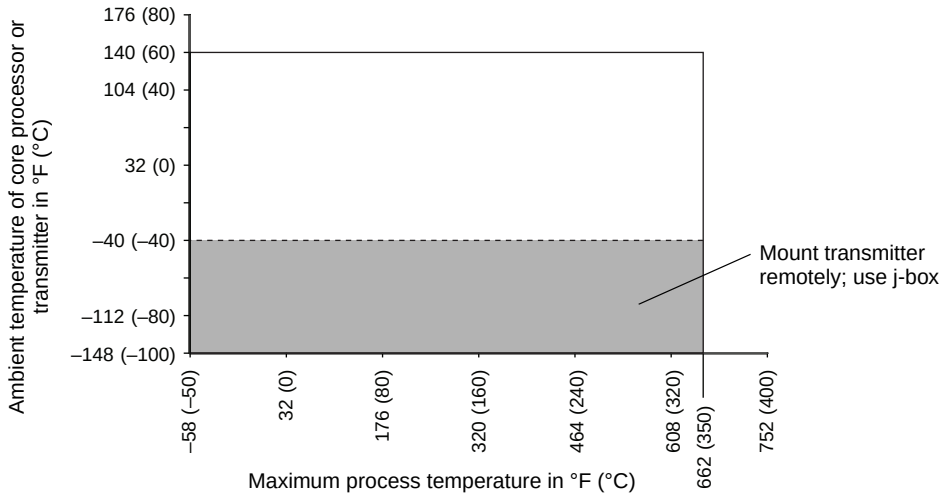
Temperature limits 3
Accuracy and repeatability 4
Liquid flow performance 5
Gas flow performance 6
Density range (liquid only) 8
Vibration limits 8
Power consumption 8
Pressure ratings 8
Environmental effects 20
Hazardous area classifications 21
Materials of construction 29
Weight 29
Dimensions 30
Fitting options 41
Ordering information 54

Temperature limits

All models except high-temperature models[1] [2] [3] [4]



High-temperature models



(1) Temperature limits may be further restricted by hazardous area approvals. See pages 21–27.

(2) The temperature graphs shown here are for use only as a general guide.

(3) When ambient temperature is below –40 °F (–40 °C), a core processor or Model 2400S transmitter must be heated to bring its local ambient temperature to between –40 °F (–40 °C) and +140 °F (+60 °C). Long-term storage of electronics at ambient temperatures below –40 °F (–40 °C) is not recommended.

(4) The temperature limits shown apply only when the electronics are not covered (for example, by insulation). If the sensor case must be insulated, use extended mount electronics.

Accuracy and repeatability

			Electronics option	
			Model 2400S, enh. core processor	**Other MVD transmitter, std. core processor**
Mass and volume flow[1]	Liquid	Accuracy[2]	±0.05% of rate[3][4][5]	±0.10% of rate[6][5]
		Repeatability	±0.025% of rate	±0.05% of rate
	Gas	Accuracy	±0.35% of rate[7]	±0.35% of rate
		Repeatability	±0.20% of rate	±0.20% of rate
Density[1][8]	Liquid	Accuracy	±0.0002 g/cm^3 (±0.2 kg/m^3)	±0.0005 g/cm^3 (±0.5 kg/m^3)
		Repeatability	±0.0001 g/cm^3 (±0.1 kg/m^3)	±0.0002 g/cm^3 (±0.2 kg/m^3)
Temperature		Accuracy	±1 °C ± 0.5% of reading	±1 °C ± 0.5% of reading
		Repeatability	±0.2 °C	±0.2 °C
			lb/min	**kg/h**
Zero stability		CMFS010M	0.000075	0.002
		CMFS010H, P	0.00015	0.004
		CMFS015M	0.00037	0.01
		CMFS015H, P	0.00073	0.02
		CMF010M, H	0.000075	0.002
		CMF010P	0.00015	0.004
		CMF025	0.001	0.027
		CMF050	0.006	0.163
		CMF100	0.025	0.680
		CMF200	0.08	2.18
		CMF300	0.25	6.80
		CMF400	1.50	40.91

(1) Accuracy options vary by model. Models CMF010, CMFS010, CMFS015, sensors with Model 2200S transmitter, and all high-temperature models have fewer accuracy options. See Ordering information on page 54.

(2) Stated flow accuracy includes the combined effects of repeatability, linearity, and hysteresis. All specifications for liquids are based on reference conditions of water at 68 to 77 °F (20 to 25 °C) and 15 to 30 psig (1 to 2 bar), unless otherwise noted.

(3) When flow rate is less than zero stability / 0.0005, accuracy = ±[(zero stability / flow rate) × 100]% of rate, and repeatability = ±[½(zero stability / flow rate) × 100]%.

(4) When ordered with the ±0.10% factory calibration option, accuracy on liquid = ±0.10% when flow rate ≥ zero stability / 0.001. When flow rate < zero stability / 0.001, accuracy = ±[(zero stability / flow rate) × 100]% of rate and repeatability = ±[½(zero stability / flow rate) × 100]% of rate.

(5) For cryogenic applications (below –100 °C), mass flow accuracy is ±0.35% of rate.

(6) When flow rate is less than zero stability / 0.001, accuracy = ±[(zero stability / flow rate) × 100]% of rate and repeatability = ±[½(zero stability / flow rate) × 100]% of rate.

(7) When flow rate is less than zero stability / 0.0035, accuracy equals ±[(zero stability / flow rate) × 100]% of rate and repeatability equals ±[½(zero stability / flow rate) × 100]% of rate.

(8) Specifications for ±0.0002 g/cm^3 (±0.2 kg/m^3) density accuracy are based on reference conditions of water at 68 to 140 °F (20 to 60 °C) and 15 to 30 psig (1 to 2 bar).

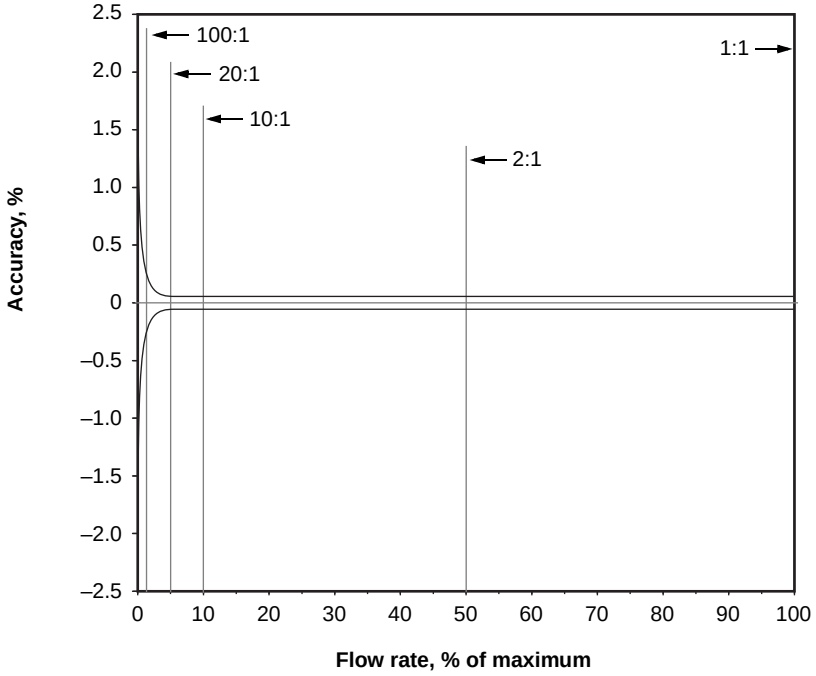
Liquid flow performance

		Mass		Volume[1]			
		lb/min	kg/h	gal/min	l/h	bbl/h	m^3/h
Maximum flow rate	CMFS010	4	108	0.5	108		
	CMFS015	12	330	1.5	330		
	CMF010	4	108	0.5	108		
	CMF025	80	2180	10	2180		
	CMF050	250	6800	30	6800		
	CMF100	1000	27,200	120	27,200		
	CMF200	3200	87,100	385	87,100	550	87
	CMF300	10,000	272,000	1200	272,000	1700	272
	CMF400	20,000	545,000	2400	545,000	3400	545

Typical accuracy, turndown, and pressure drop with CMF100 and 2400S or enhanced core processor

The graph below is an example of the relationship between accuracy, turndown, and pressure drop when measuring the flow of water with a Model CMF100 sensor and Model 2400S transmitter or enhanced core processor.

Actual pressure drop is dependent on process conditions. To determine accuracy, turndown, and pressure drop with your process variables, use the Micro Motion product selector, available at www.micromotion.com.



Turndown from maximum flow rate		***500:1***	***100:1***	***20:1***	***10:1***	***2:1***
Accuracy	±%	1.25	0.25	0.05	0.05	0.05
Pressure drop	psi	~0	~0	0.2	0.7	13.5
	bar	~0	~0	0.01	0.05	0.93

(1) Specifications for volumetric flow rate are based on a process-fluid density of 1 g/cm³ (1000 kg/m³). For fluids with density other than 1 g/cm³ (1000 kg/m³), the volumetric flow rate equals the mass flow rate divided by the fluid's density.

Gas flow performance

When selecting sensors for gas applications, measurement accuracy is a function of fluid mass flow rate independent of operating temperature, pressure, or composition. However, pressure drop through the sensor is dependent upon operating temperature, pressure, and fluid composition. Therefore, when selecting a sensor for any particular gas application, it is highly recommended that each sensor be sized using the Micro Motion product selector, available at www.micromotion.com.

		Mass		**Volume**[1]	
		lb/min	kg/h	SCFM	Nm^3/h
Flow rates that produce approximately 10 psi (0.68 bar) pressure drop on air[2]	CMFS010	0.3	8	4	6
	CMFS015	1	24	12	18
	CMF010M, H	0.30	8	4	6
	CMF010P	0.2	6	3	5
	CMF025	4	110	60	90
	CMF050	10	300	145	230
	CMF100	50	1300	640	1000
	CMF200	150	4000	2000	3100
	CMF300	490	13,300	6500	10,300
	CMF400	1250	34,000	16,600	26,250
Flow rates that produce approximately 50 psi (3.4 bar) pressure drop on natural gas[3]	CMFS010	1	30	30	45
	CMFS015	3	90	90	130
	CMF010M, H	1	30	30	45
	CMF010P	0.9	25	20	35
	CMF025	16	450	380	600
	CMF050	40	1140	970	1530
	CMF100	185	5000	4300	6700
	CMF200	560	15,200	13,000	20,500
	CMF300	1850	50,500	43,000	68,000
	CMF400	4700	128,000	109,000	172,000

(1) Standard (SCFM) reference conditions are 14.7 psia and 68 °F. Normal (Nm^3/h) reference conditions are 1.013 bar and 0 °C.

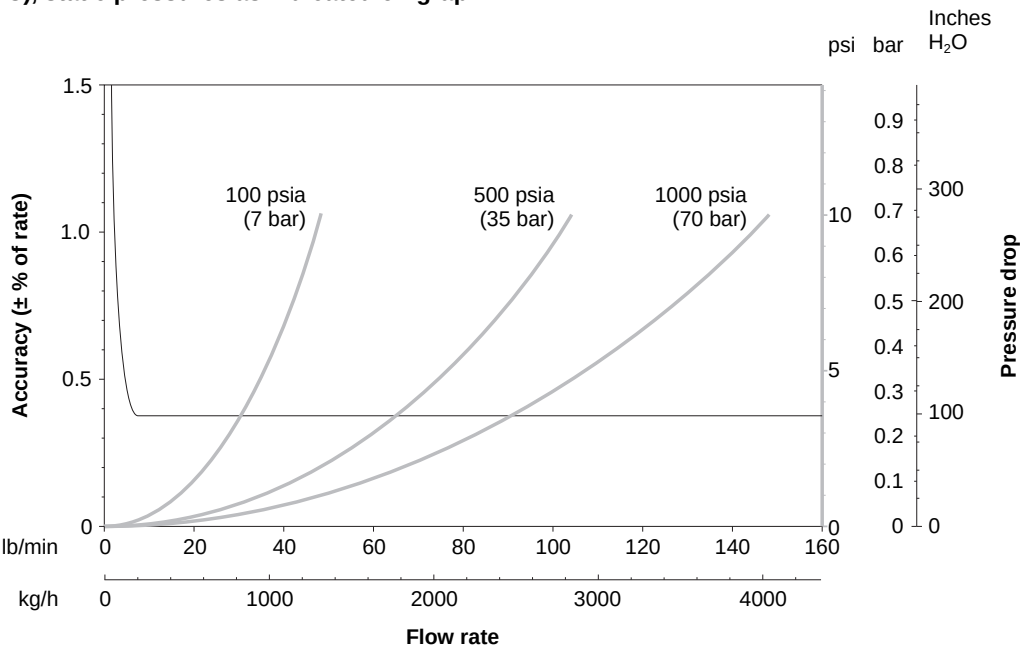
(2) Air at 68 °F (20 °C) and 100 psia (6.8 bar).

(3) Natural gas with MW 16.675 at 68 °F (20 °C) and 500 psia (34.0 bar).

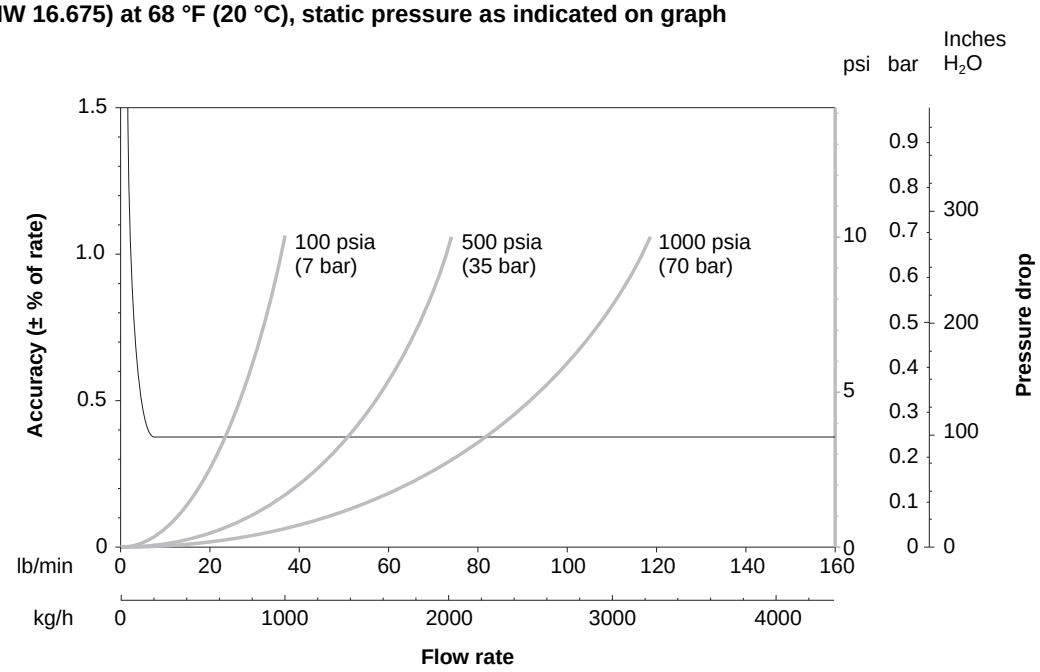
Gas flow performance *continued*

Typical mass flow accuracy and pressure drop with CMF100 and transmitter with MVD technology

Air at 68 °F (20 °C), static pressures as indicated on graph



Natural gas (MW 16.675) at 68 °F (20 °C), static pressure as indicated on graph



Standard or Normal Volumetric Capability

Standard and normal volumes are “quasi mass” flow units for any fixed composition fluid. Standard and normal volumes do not vary with operating pressure, temperature, or density. With knowledge of density at standard or normal conditions (available from reference sources), a Micro Motion meter can be configured to output in standard or normal volume units without the need for pressure, temperature, or density compensation. Contact your local sales representative for more information.

Density range (liquid only)

Range	Up to 5 g/cm^3	Up to 5000 kg/m^3

Vibration limits

Meets IEC 68.2.6, endurance sweep, 5 to 2000 Hz, 50 sweep cycles at 1.0 g

Power consumption

Meter with core processor	4 watts maximum
Meter with Model 2400S transmitter	7 watts maximum
Meter with Model 2200S transmitter	Loop-powered, 0.8 watts maximum
Meter with Model 1700/2700 transmitter	Refer to transmitter documentation

Pressure ratings

PED compliance Sensors comply with council directive 97/23/EC of 29 May 1997 on Pressure Equipment

Dual seal compliance CSA sensors comply with ANSI/ISA 12.27.01-2003 requirements for process sealing between electrical systems and flammable or combustible process fluids

		ASME B31.3 secondary containment rating (1)		**Burst pressure (1)**	
Housing rating (1)		psig	bar	psig	bar
	CMFS010	850	58	5169	356
	CMFS015	850	58	5169	356
	CMF010 (2)	425	29	3042	209
	CMF025	850	58	5480	377
	CMF050	850	58	5286	364
	CMF100	625	43	3299	227
	CMF200	550	37	2786	192
	CMF300	275	18	1568	108
	CMF400	250	17	1556	107

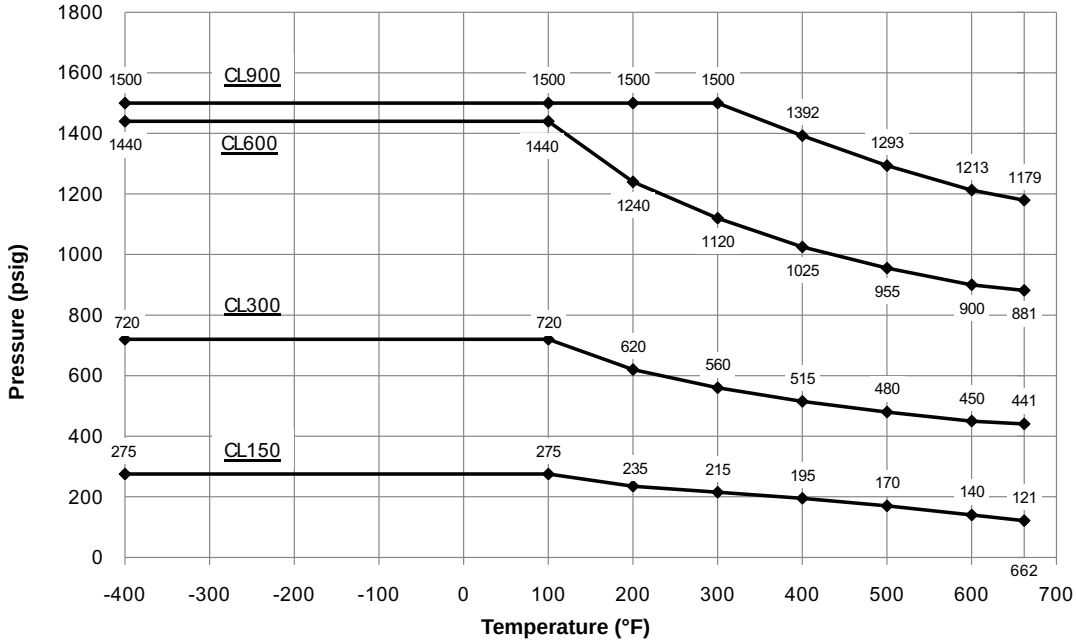
(1) The housing of high-temperature models is rated for neither secondary containment nor burst pressure.

(2) Optional rupture disks for high-pressure CMF010P will burst if pressure inside sensor housing reaches 400 psig (27 bar).

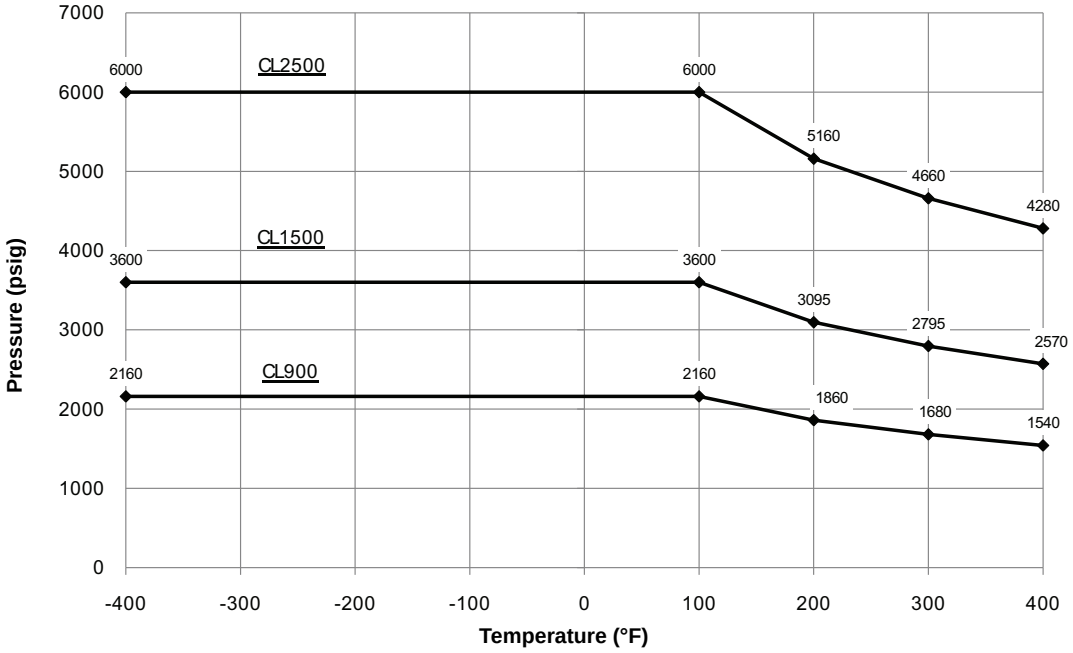
Pressure ratings *continued*

Sensor pressure/temperature rating with ASME B16.5 F316L/F316L weld neck flanges

Models CMF010M through CMF400M; Models CMF200A through CMF400A; and Models CMFS010M and CMFS015M

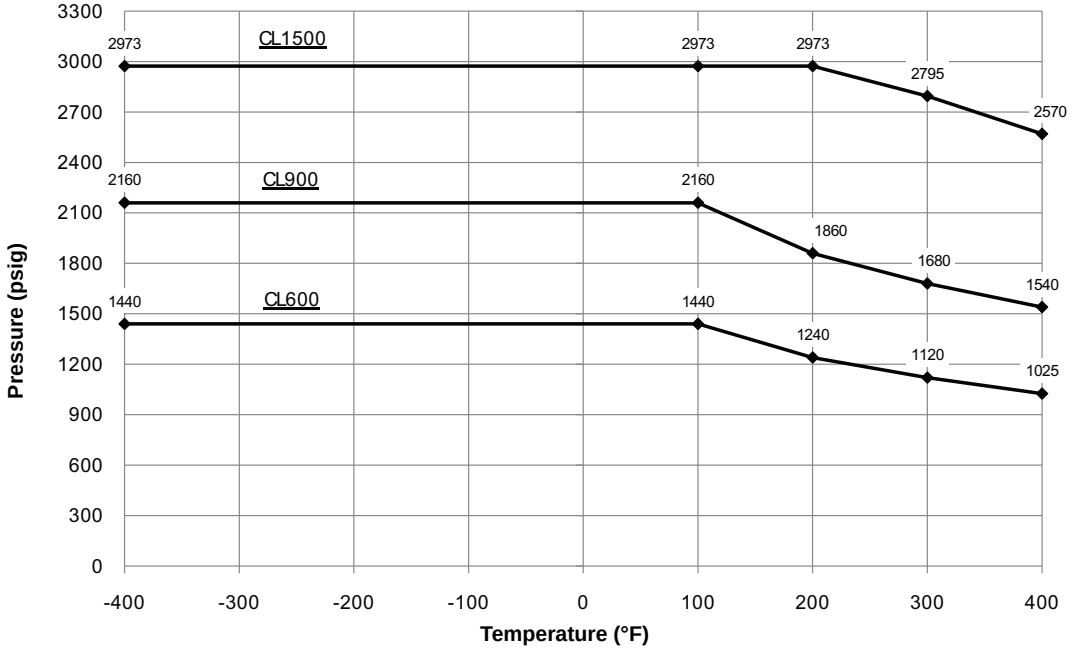


Models CMFS010P and CMFS015P



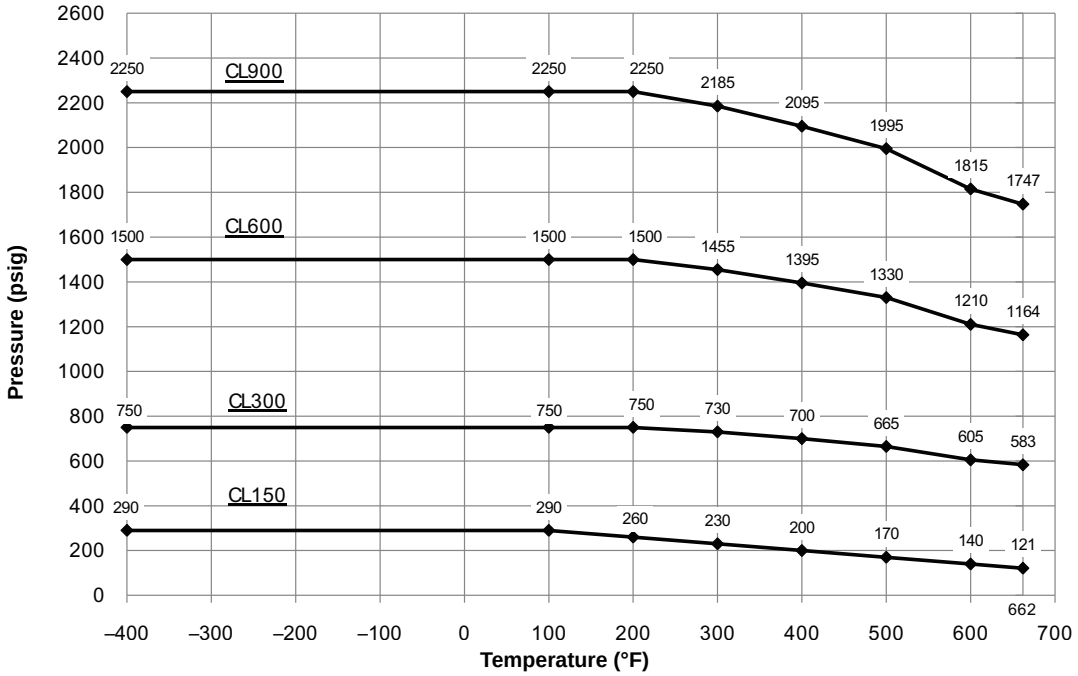
Pressure ratings *continued*

Model CMF400P



Sensor pressure/temperature rating with ASME B16.5 UNS N06022 weldneck flanges

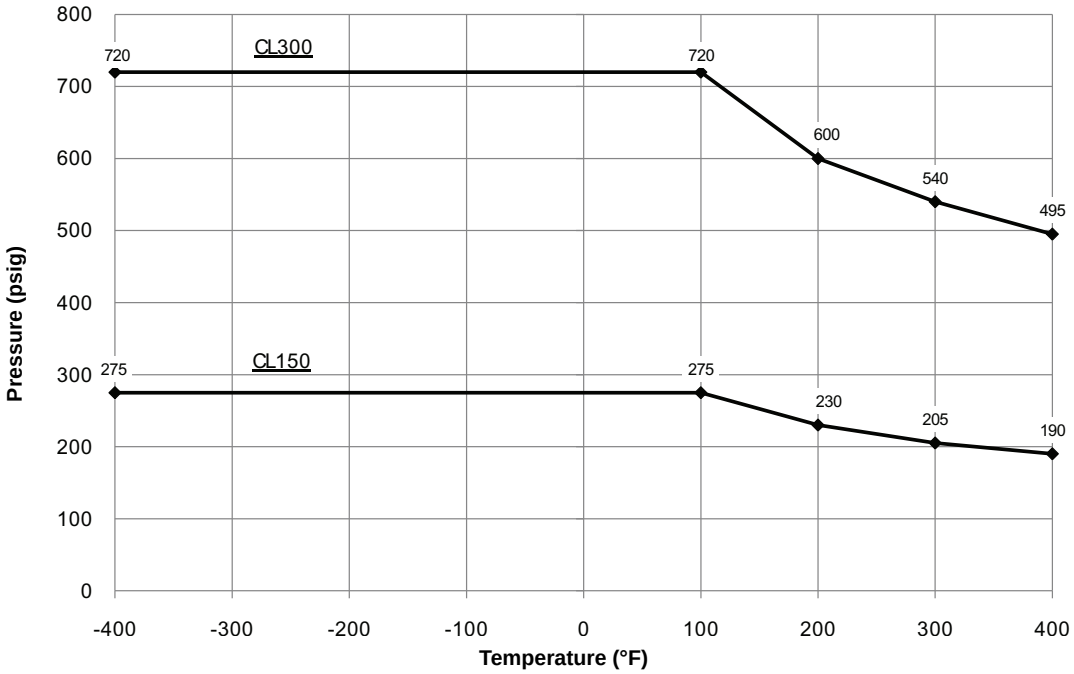
Models CMF400H and CMF400B



Pressure ratings *continued*

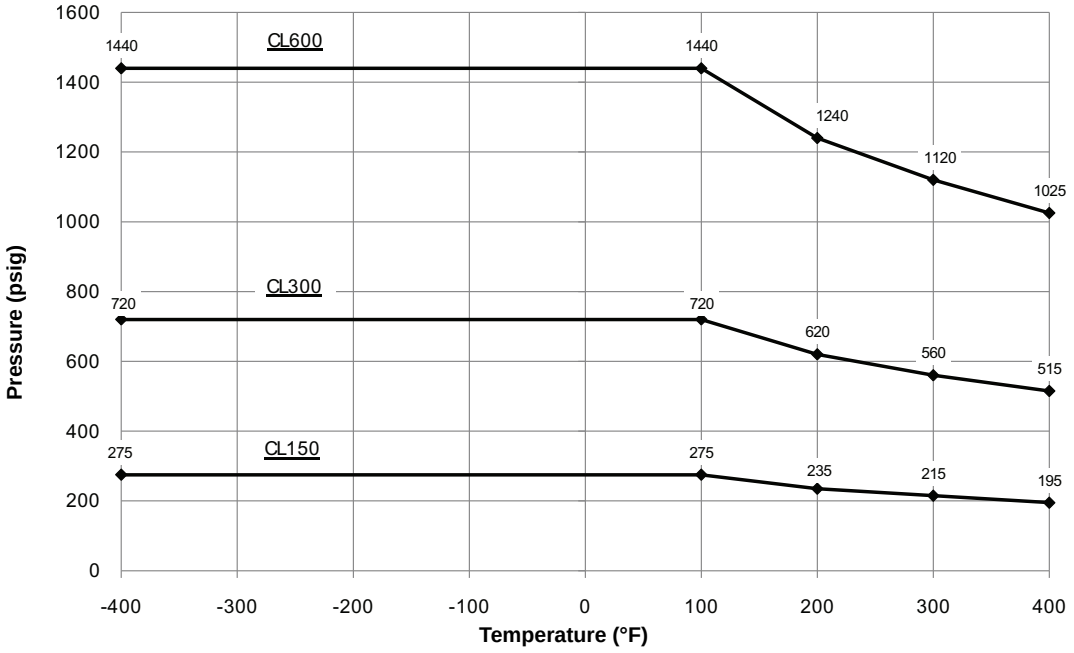
Sensor pressure/temperature ratings with ASME B16.5 F304/304L weldneck flanges

Models CMF010L through CMF300L



Sensor pressure/temperature rating with ASME B16.5 F316L/F316L wafer flanges

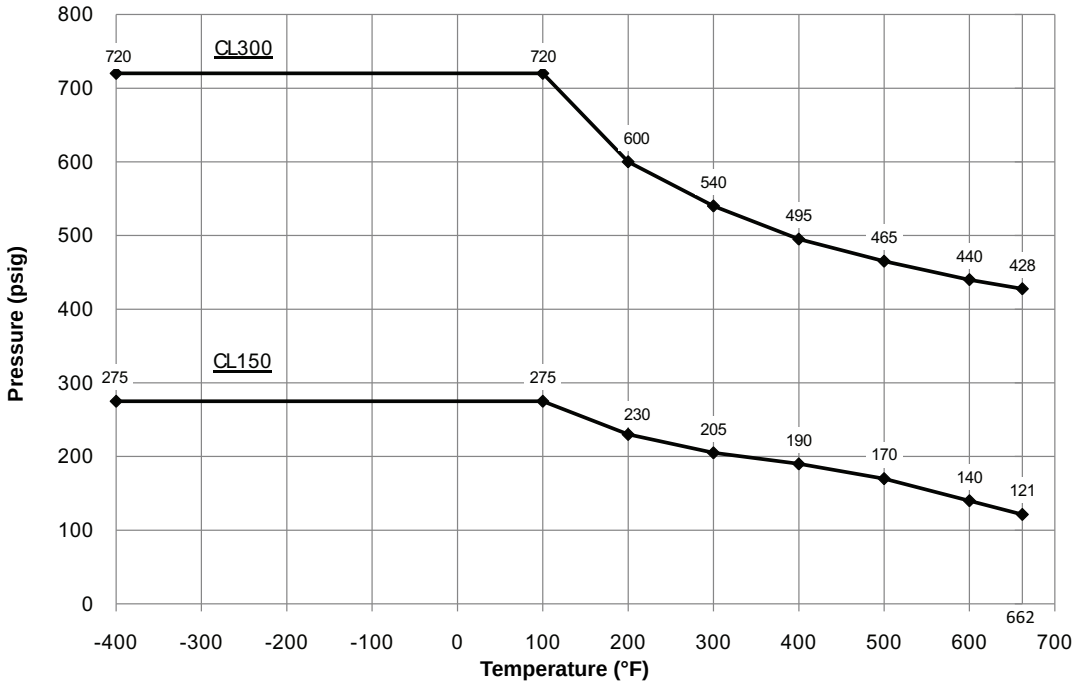
Models CMF025M through CMF100M



Pressure ratings *continued*

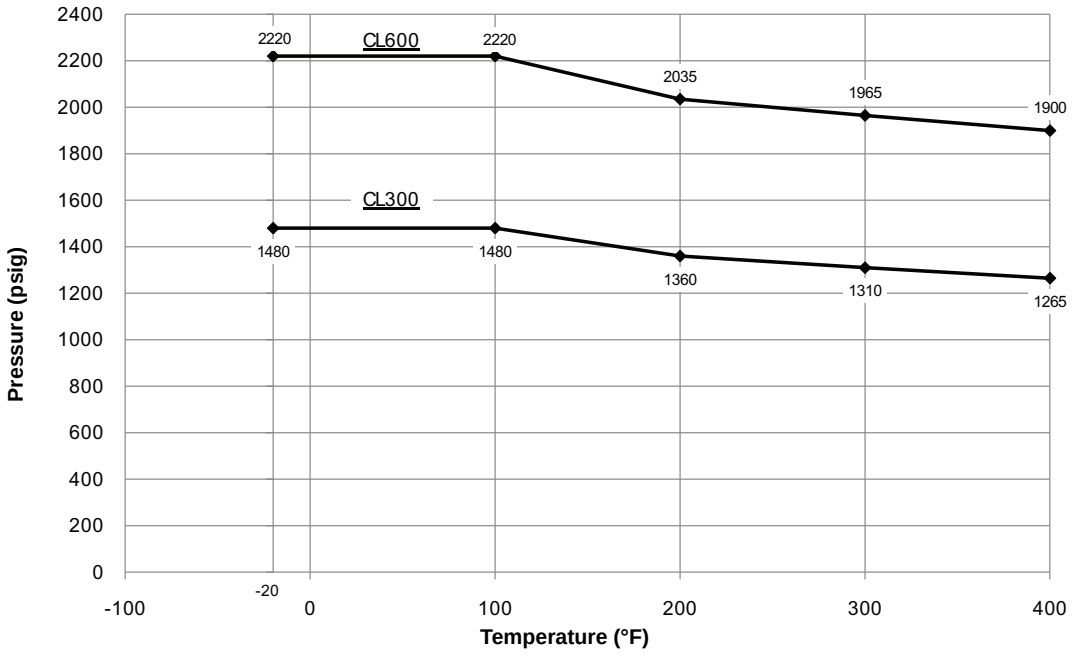
Sensor pressure/temperature rating with ASME B16.5 F304/304L lap joint flanges

Models CMF010H through CMF400H; Models CMF200B through CMF400B; Models CMFS010H and CMFS015H



Sensor pressure/temperature ratings with ASME B16.5 A105 lap joint flanges

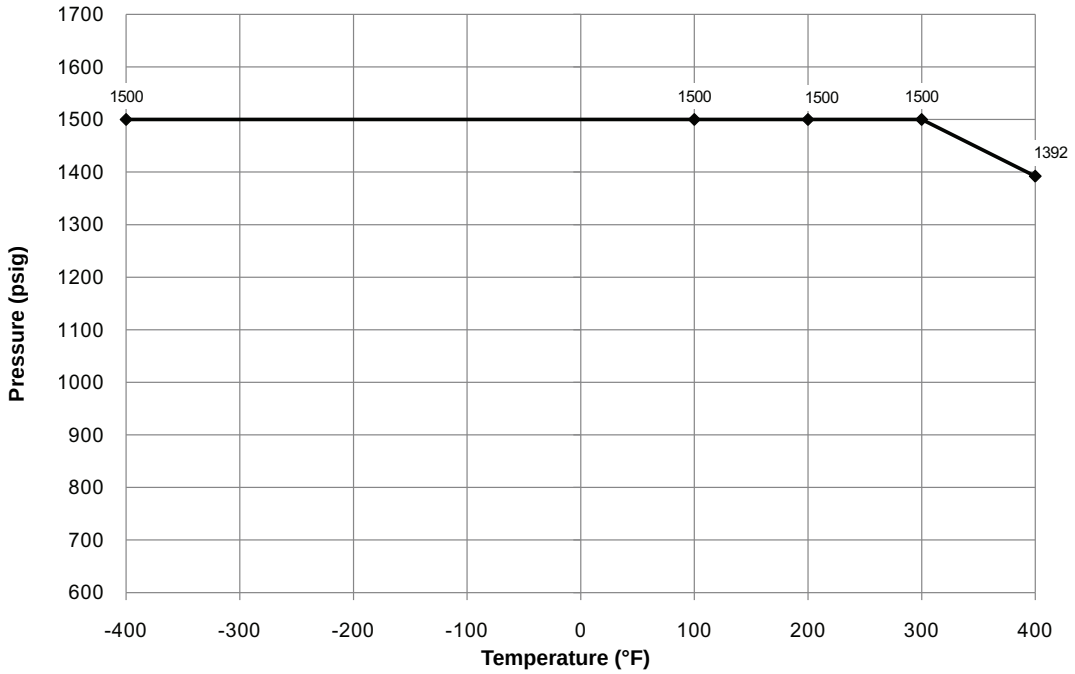
Model CMF400P



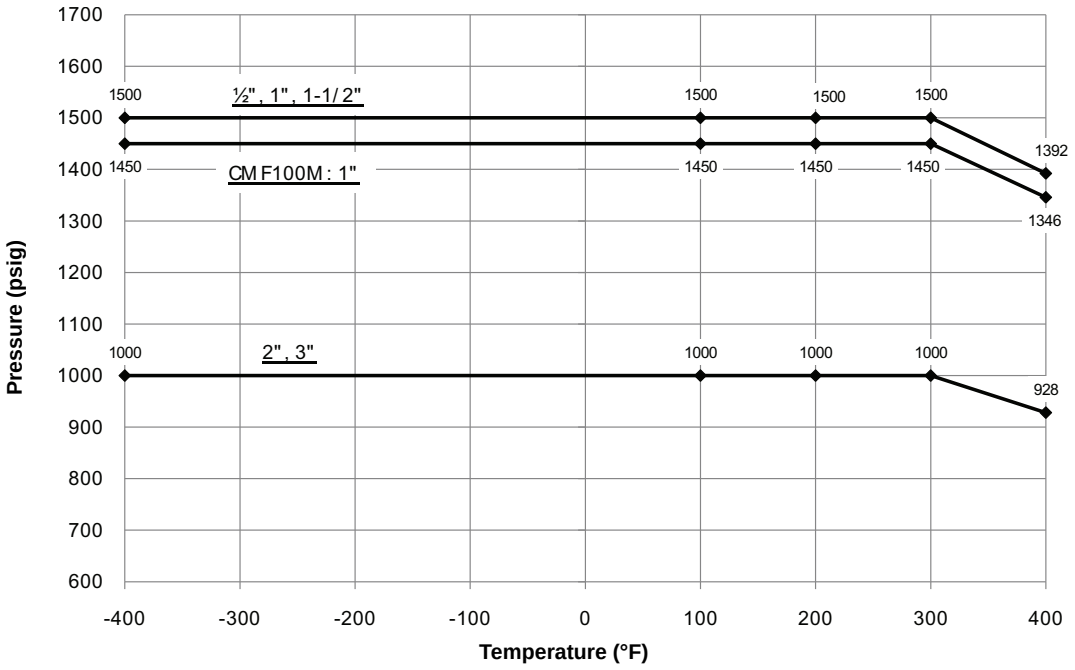
Pressure limits *continued*

Sensor pressure/temperature ratings with Tri-Clamp compatible 316L hygienic fittings

Models CMFS010M and CMFS015M



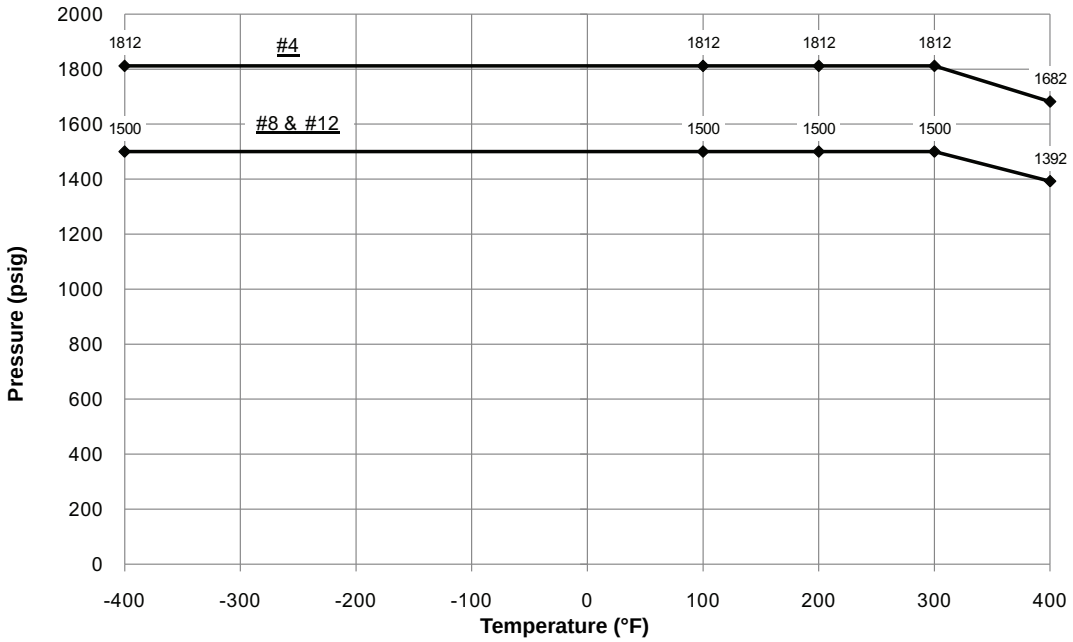
Models CMF010M through CMF300M



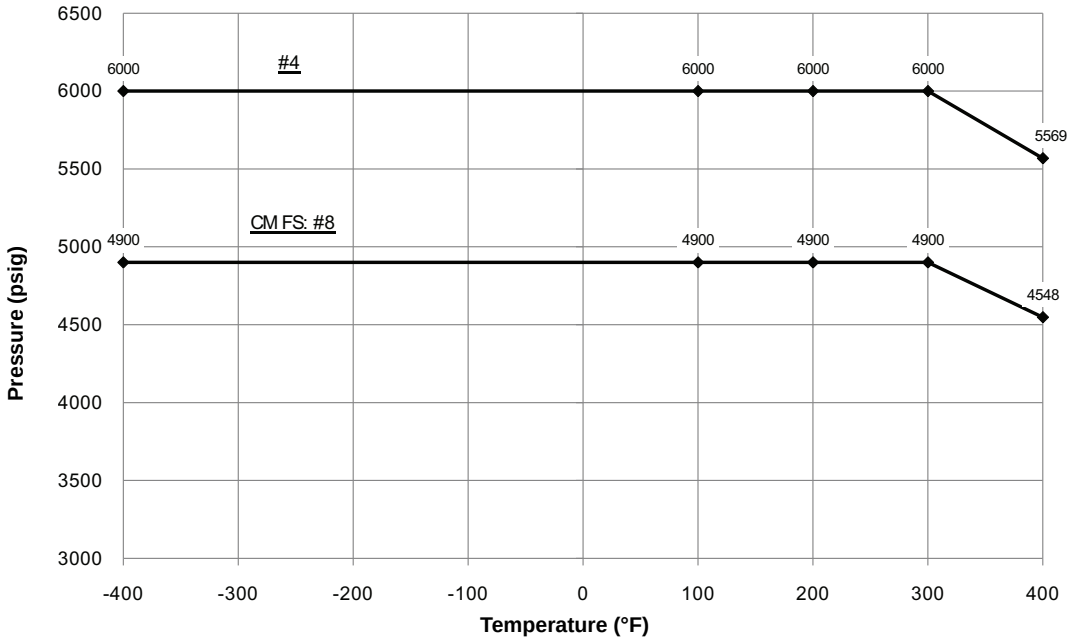
Pressure ratings *continued*

Sensor pressure/temperature ratings with VCO 316/316L fittings

Models CMF010M, CMFS010M, and CMFS015M



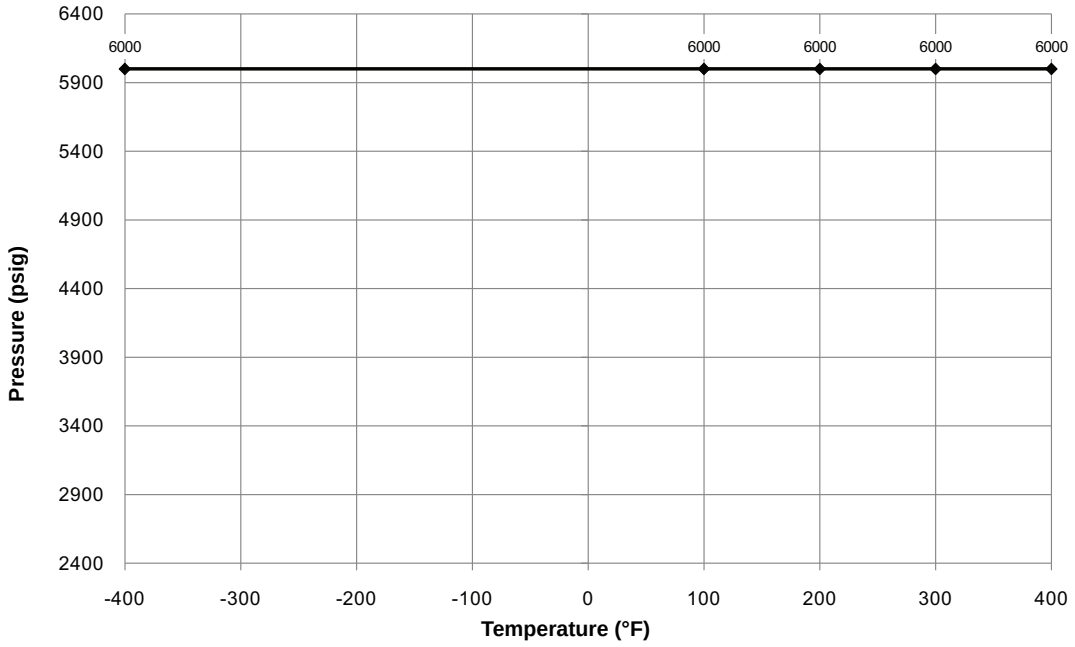
Models CMF010P, CMFS010P, and CMFS015P



Pressure ratings *continued*

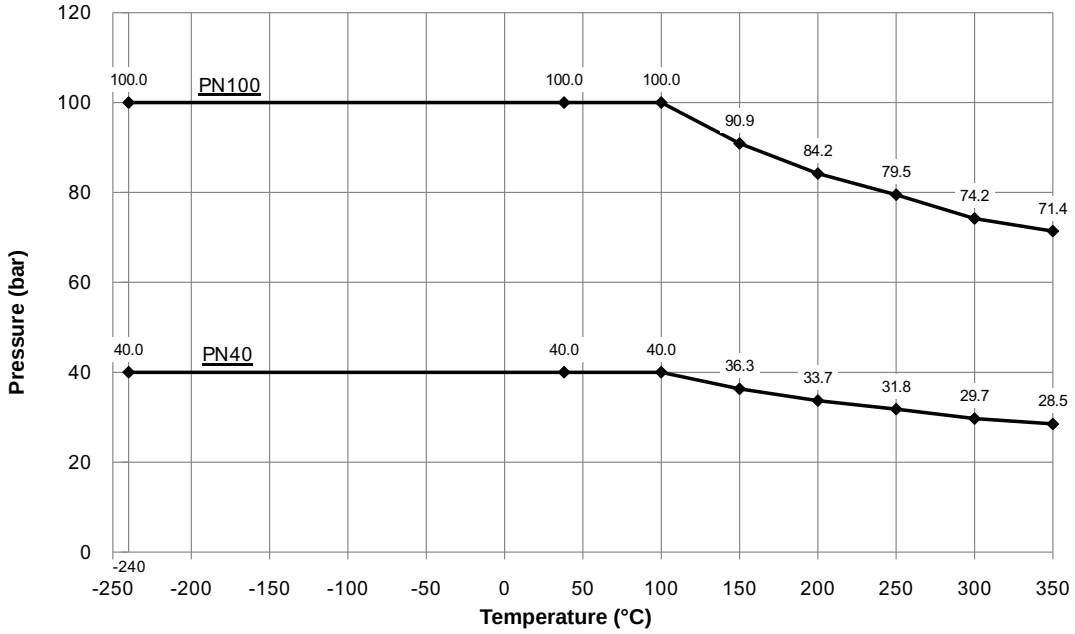
Sensor pressure/temperature ratings with VCO UNS N06022 fittings

Models CMF010H, CMFS010H, and CMFS015H



Sensor pressure/temperature ratings with EN1092-1 and DIN F316/316L weldneck flanges

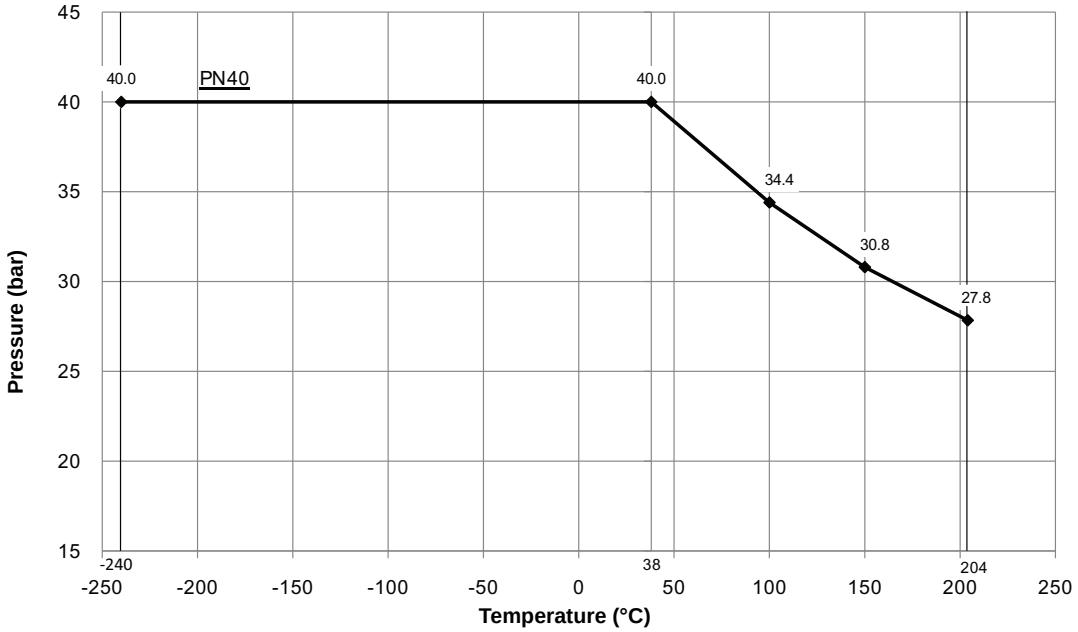
Models CMF010M through CMF400M; CMF200A through CMF400A; CMFS010M and CMFS015M



Pressure ratings *continued*

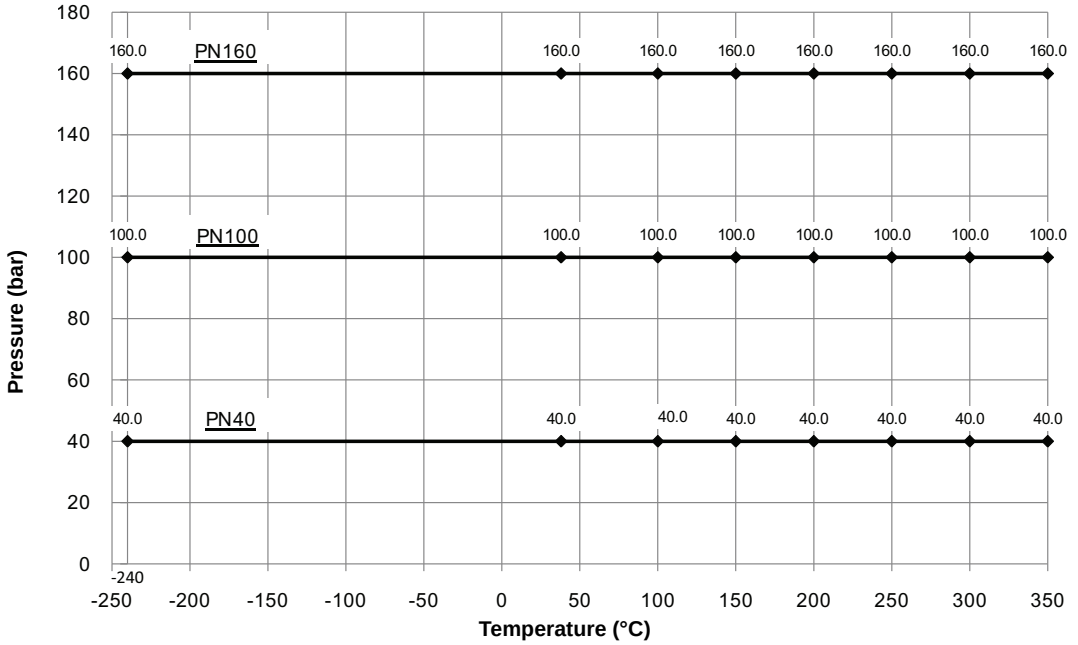
Sensor pressure/temperature ratings with EN1092-1 and DIN 304/304L weldneck flanges

Models CMF010L through CMF300L



Sensor pressure/temperature ratings with EN1092-1 UNS N06022 weldneck flanges

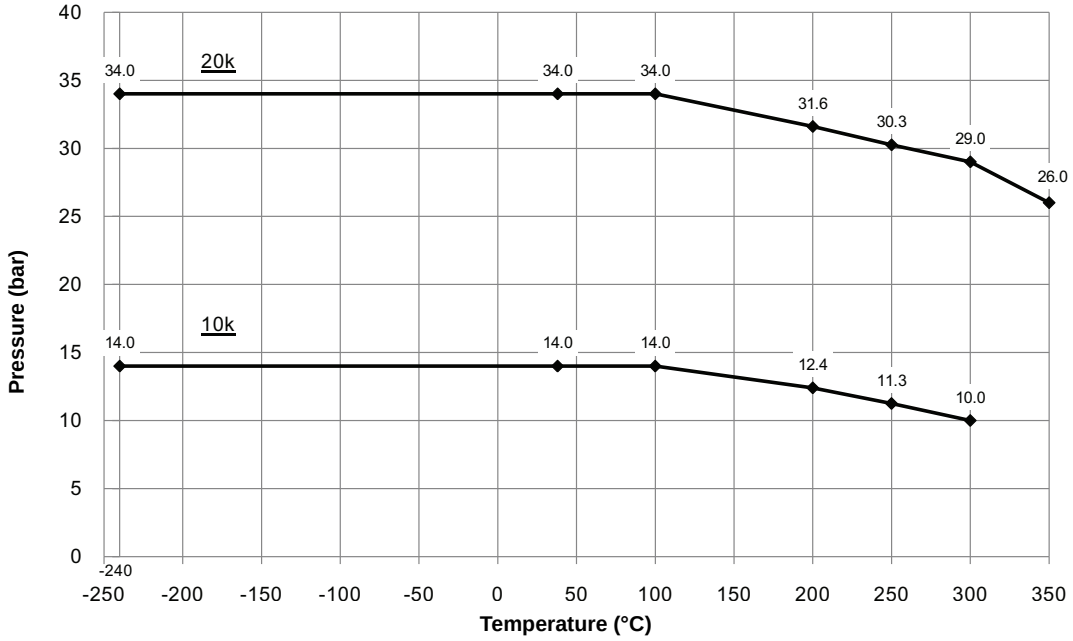
Models CMF400H and CMF400B



Pressure ratings *continued*

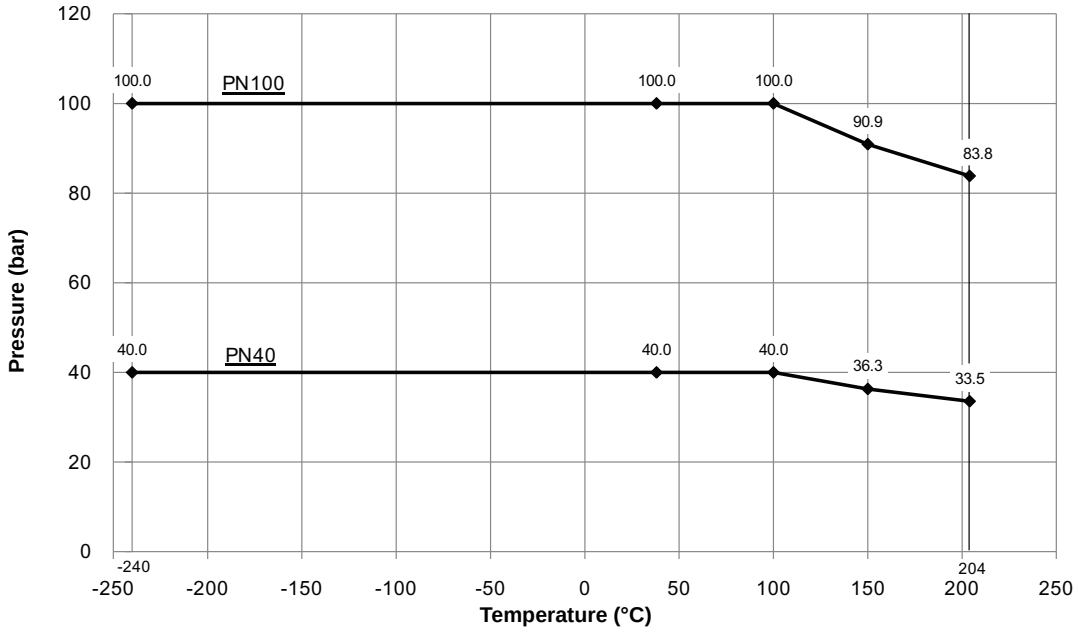
Sensor pressure/temperature ratings with JIS 2220 F316/316L weldneck flanges

Models CMF010M through CMF400M; CMF200A through CMF400A; CMF400P; CMFS010P and CMFS015P



Sensor pressure/temperature ratings with DIN 316/316L wafer flanges

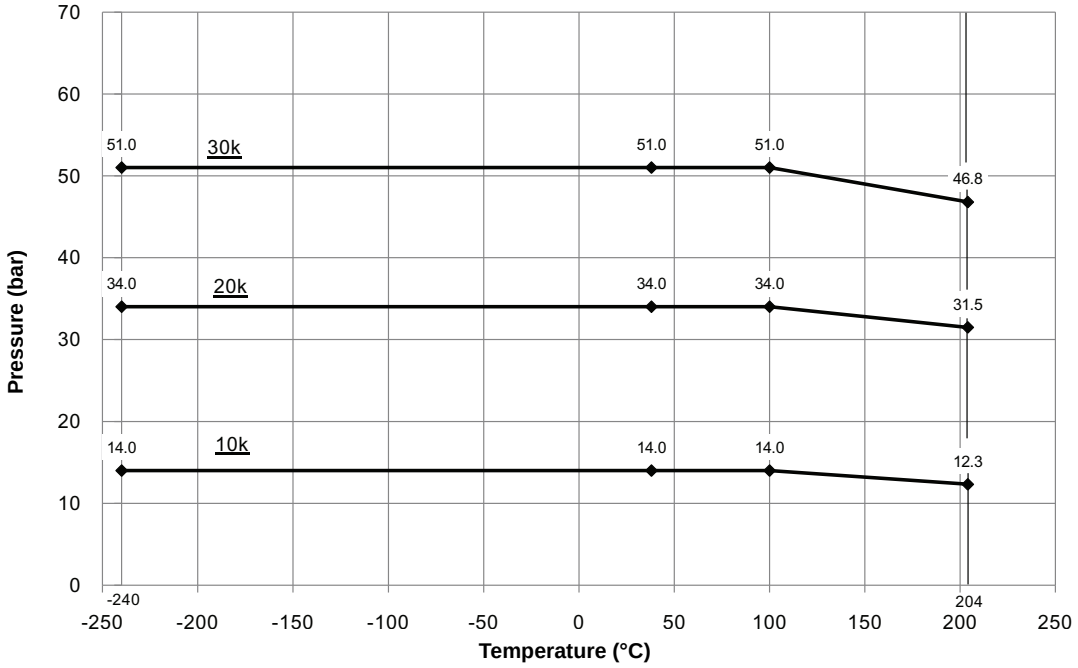
Models CMF025M through CMF100M



Pressure ratings *continued*

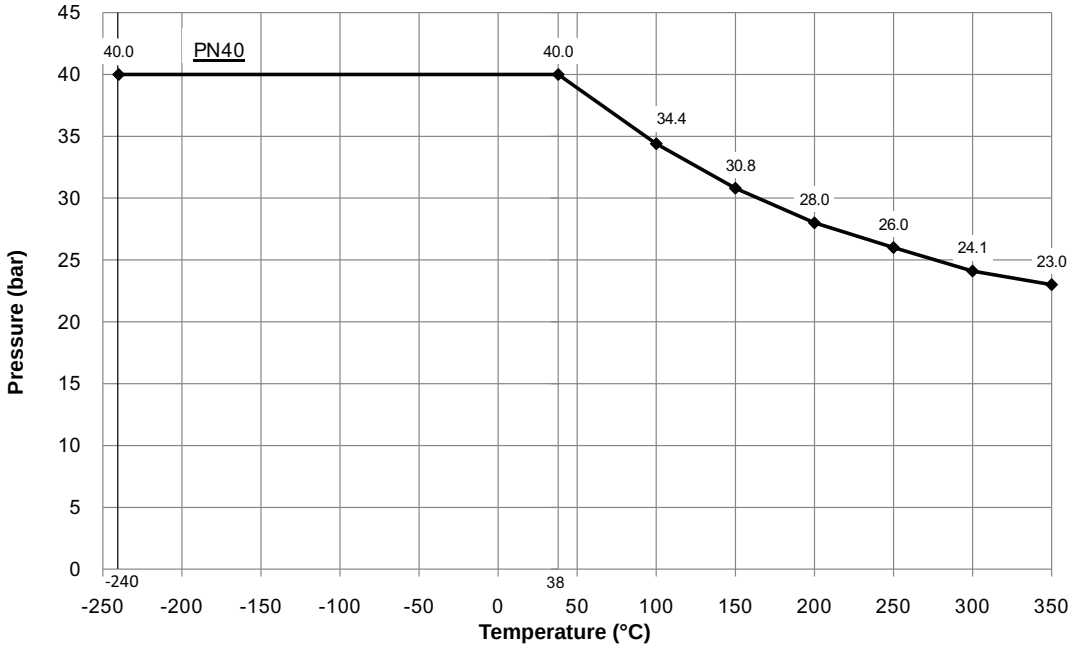
Sensor pressure/temperature ratings with JIS 2220 316/316L wafer flanges

Models CMF025M through CMF100M



Sensor pressure/temperature ratings with EN1092-1 and DIN 304/304L lap joint flanges

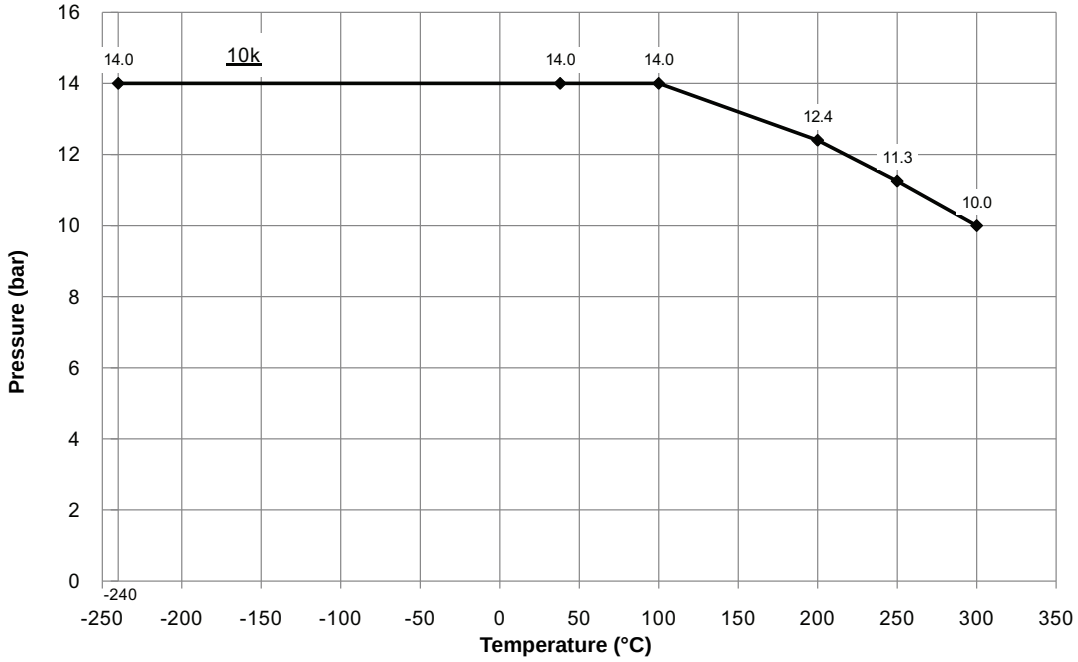
Models CMF010H through CMF300H; CMF200B and CMF300B; CMFS010H and CMFS015H



Pressure ratings *continued*

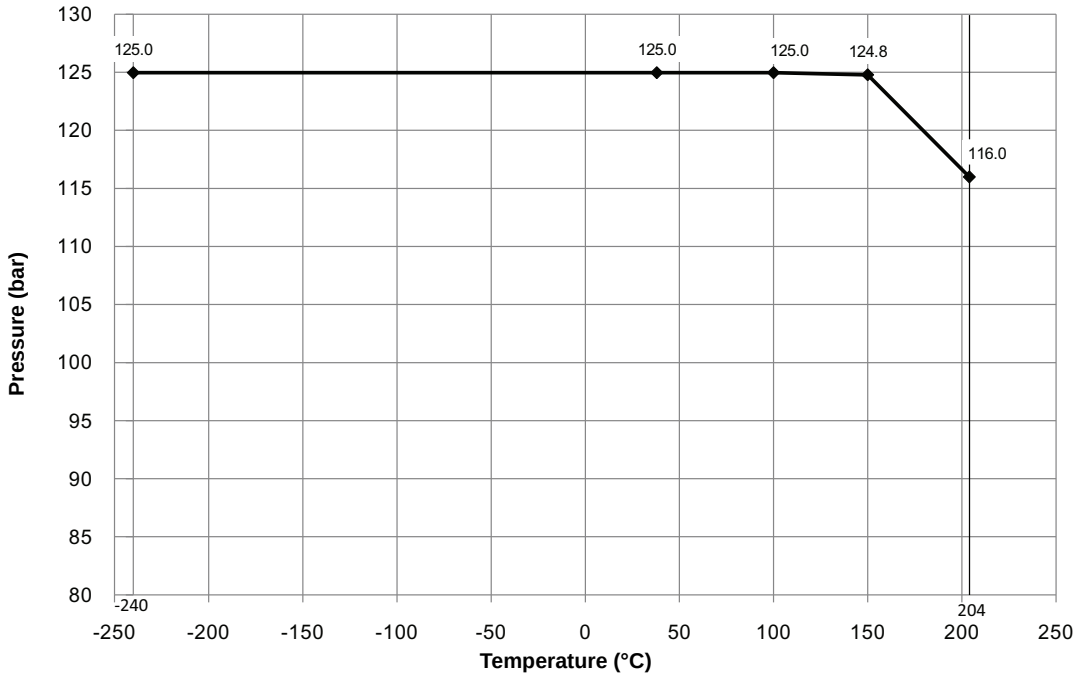
Sensor pressure/temperature ratings with JIS 2220 304/304L lap joint flanges

Models CMF010H through CMF300H; CMF200B and CMF300B; CMFS010H and CMFS015H



Sensor pressure/temperature ratings with ISO2852 Clamp 316L hygienic fittings

Models CMFS010M and CMFS015M



Environmental effects

Process temperature effect

Process temperature effect is defined as:

- For mass flow measurement, the worst-case zero offset due to process fluid temperature change away from the zeroing temperature.
- For density measurement, the maximum measurement offset due to process fluid temperature change away from the density calibration temperature.

	Process temperature effect		
	% of maximum flow rate per °C	density accuracy per °C[1]	
		g/cm^3	kg/m^3
CMFS010, CMFS015, CMF010, CMF025, CMF050, and CMF100	±0.0002	±0.000015	±0.015
CMF200	±0.0005	±0.000015	±0.015
CMF300	±0.0005	±0.000015	±0.015
CMF400	±0.0007	±0.000015	±0.015

Pressure effect

Pressure effect is defined as the change in sensor flow and density sensitivity due to process pressure change away from the calibration pressure. Pressure effect can be corrected.

	Pressure effect on flow accuracy			
	% of rate per psi		% of rate per bar	
	liquid	*gas*	*liquid*	*gas*
CMFS010	None	None	None	None
CMFS015	None	None	None	None
CMF010	None	None	None	None
CMF025	None	None	None	None
CMF050	None	None	None	None
CMF100	–0.0002	None	–0.003	None
CMF200	–0.0008	–0.0004	–0.012	–0.006
CMF300	–0.0006	–0.0003	–0.009	–0.0045
CMF400	–0.0015	–0.0015	–0.022	–0.022

	Pressure effect on density accuracy	
	g/cm^3 per psi	kg/m^3 per bar
CMFS010	None	None
CMFS015	None	None
CMF010	None	None
CMF025	0.000004	0.058
CMF050	–0.000002	–0.029
CMF100	–0.000006	–0.087
CMF200	–0.000001	–0.0145
CMF300	–0.0000002	–0.0029
CMF400	–0.00001	–0.145

(1) For –100 °C and above.

Hazardous area classifications

UL[1]

All models with core processor	Ambient temperature: –40 to +104 °F (–40 to +40 °C) Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A, B, C, and D Class II, Div.1, Groups E, F, and G
All models with junction box	Ambient temperature: +104 °F (+40 °C) maximum Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A, B, C, and D Class II, Div.1, Groups E, F, and G

CSA and CSA C-US[2]

All models with Model 2400S transmitter	Ambient temperature: –40 to +140 °F (–40 to +60 °C) Class I, Div. 2, Groups A, B, C and D Class II, Div. 2, Groups F and G
Models CMFS010 and CMFS015 with FMT transmitter	Ambient temperature: –13 to +140 °F (–25 to +60 °C) Class I, Div. 2, Groups A, B, C and D Class II, Div. 2, Groups F and G
All models with core processor or Model 2200S transmitter	Ambient temperature: –40 to +140 °F (–40 to +60 °C) Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A, B, C, and D Class II, Div.1, Groups E, F, and G
All models with junction box	Ambient temperature: +140 °F (+60 °C) maximum Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A, B, C, and D Class II, Div.1, Groups E, F, and G

NEPSI

All models with Model 2400S transmitter	Ex nA II T1–T5, DIP A22 T[3] T1–T5
Models CMF010, CMF025, CMF050, CMF100, CMFS010, and CMFS015 with core processor or junction box	Ex ib IIC T1–T[3], DIP A22 T[3] T1–T[3]
Models CMF200, CMF300, and CMF400 with core processor or junction box	Ex ib IIB/IIC T1–T[3], DIP A22 T[3] T1–T[3]

(1) The following products are not available with UL approval: sensors with enhanced core processor, Model 2400S transmitter, FMT transmitter, or Model 2200S transmitter; high-temperature sensors; extreme high-temperature sensors.

(2) The following products are available only with CSA C-US approval (i.e., not CSA): sensors with enhanced core processor or Model 2400S transmitter; high-temperature sensors; extreme high-temperature sensors.

(3) For ambient and process temperature limits, refer to the temperature graphs on pages 23–26.

Hazardous area classifications *continued*

ATEX

All models with Model 2400S transmitter; Models CMFS010 and CMFS015 with FMT transmitter	CE ⟨Ex⟩ II 3G Ex nA IIC T1–T5 Gc II 3D Ex tc IIIC T(1) °C Dc IP66
Models CMFS010, CMFS015, CMF010, CMF025, CMF050, and CMF100 with Model 2200S transmitter	CE 0575 ⟨Ex⟩ II 2G Ex ib IIC T1–T4 II 2D Ex ibD 21 T(1) °C
	CE ⟨Ex⟩ II 3G Ex nA IIC T1–T4 Gc II 3D Ex tc IIIC T(1) °C Dc IP66
Models CMF200, CMF300, and CMF400 with Model 2200S transmitter	CE 0575 ⟨Ex⟩ II 2G Ex ib IIB/IIC T1–T4 II 2D Ex ibD 21 T(1) °C
	CE ⟨Ex⟩ II 3G Ex nA IIC T1–T4 Gc II 3D Ex tc IIIC T(1) °C Dc IP66
Models CMFS010 and CMFS015 with core processor or junction box	CE 0575 ⟨Ex⟩ II 2G Ex ib IIC T1–T(1) II 2D Ex tD A21 IP65 T(1) °C
Models CMF010, CMF025, CMF050, and CMF100, with core processor or junction box	CE 0575 ⟨Ex⟩ II 2G Ex ib IIC T1–T(1) Gb II 2D Ex ib IIIC T(1) °C Db IP66
Models CMF200, CMF300, and CMF400 with core processor or junction box	CE 0575 ⟨Ex⟩ II 2G Ex ib IIB/IIC T1–T(1) Gb II 2D Ex ib IIIC T(1) °C Db IP66

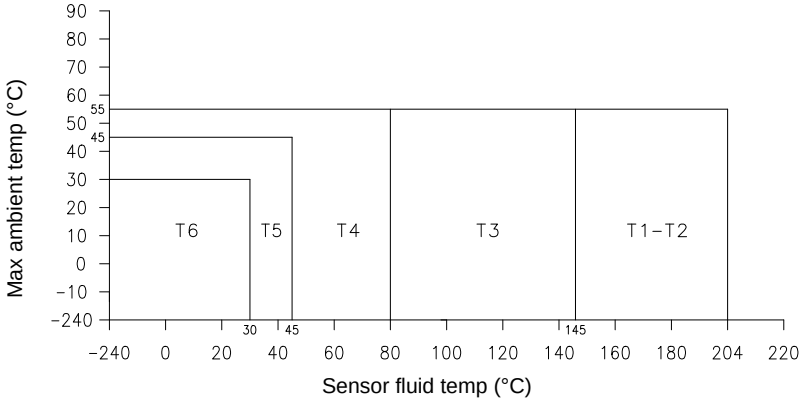
IECEx

All models with Model 2400S transmitter; Models CMFS010 and CMFS015 with FMT transmitter	Ex nA IIC T1–T5 Gc
Models CMF010, CMF025, CMF050, CMF100, CMFS010, and CMFS015 with core processor or junction box	Ex ib IIC T1–T(1) Gb
Models CMF200, CMF300, and CMF400 with core processor or junction box	Ex ib IIB/IIC T1–T(1) Gb
Models CMFS010, CMFS015, CMF010, CMF025, CMF050, and CMF100 with Model 2200S transmitter	Ex ib IIC T1–T4 Ex nA IIC T1–T4 Gc
Model CMF200, CMF300, and CMF400 with Model 2200S transmitter	Ex ib IIB/IIC T1–T4 Ex nA IIC T1–T4 Gc

(1) For ambient and process temperature limits, refer to the temperature graphs on pages 23–26.

Hazardous area classifications *continued*

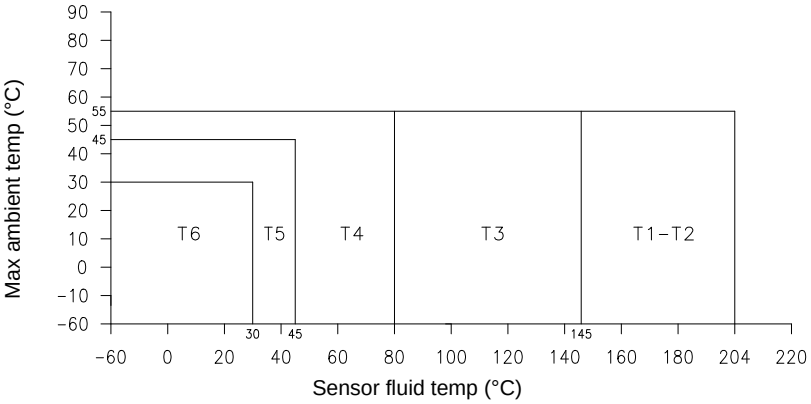
Model CMF010, CMF025, or CMF050 with junction box connected to MVD transmitter



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C. The minimum ambient and process fluid temperature allowed for dust is –40 °C.
The use of the sensor at an ambient temperature higher than +55 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range	Ta	–240 °C to +55 °C

Model CMF100 with junction box connected to MVD transmitter

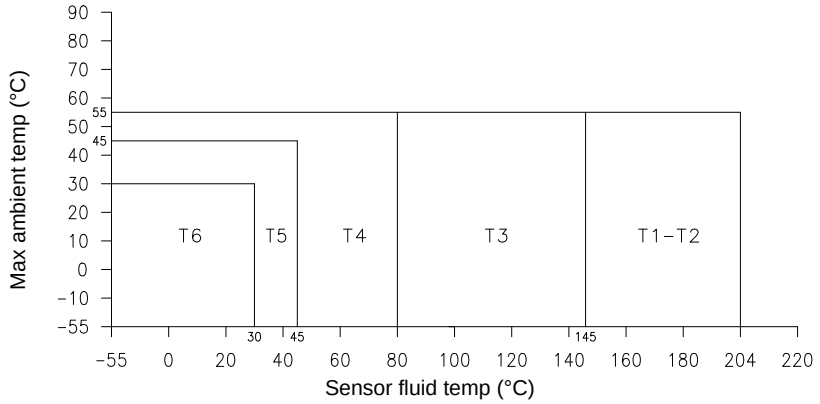


Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C. The minimum ambient and process fluid temperature allowed for dust is –40 °C.
The use of the sensor at an ambient temperature higher than +55 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range	Ta	–60 °C to +55 °C

Hazardous area classifications *continued*

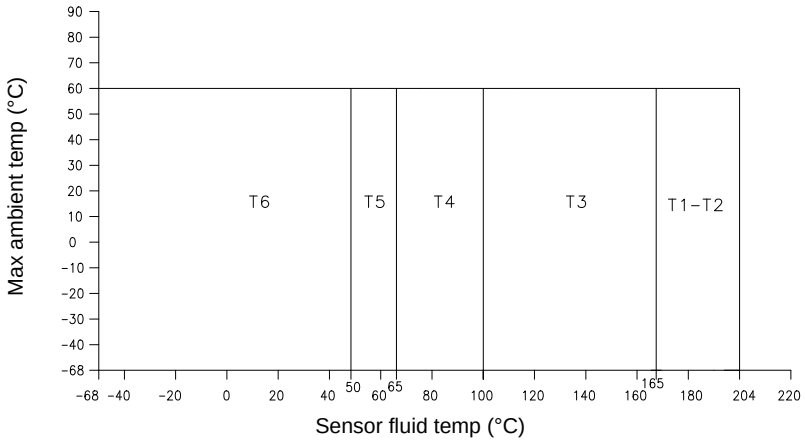
Model CMF200 or CMF300 with junction box connected to MVD transmitter[1]



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254° C. The minimum ambient and process fluid temperature allowed for dust is –40 °C.
The use of the sensor at an ambient temperature higher than +55 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range	Ta	–55 °C to +55 °C

Model CMF400 with junction box connected to MVD transmitter[1]



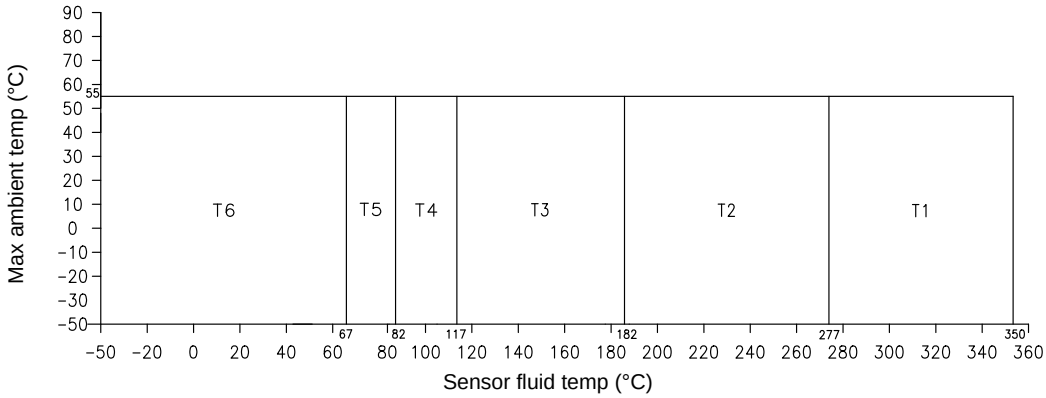
Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: to T1:T 234 °C. The minimum ambient and process fluid temperature allowed for dust is –40 °C.
The use of the sensor at an ambient temperature higher than +60 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range	Ta	–68 °C to +60 °C

(1) Refer to page 25 for "T" rating graph for high-temperature models with junction box.

Hazardous area classifications *continued*

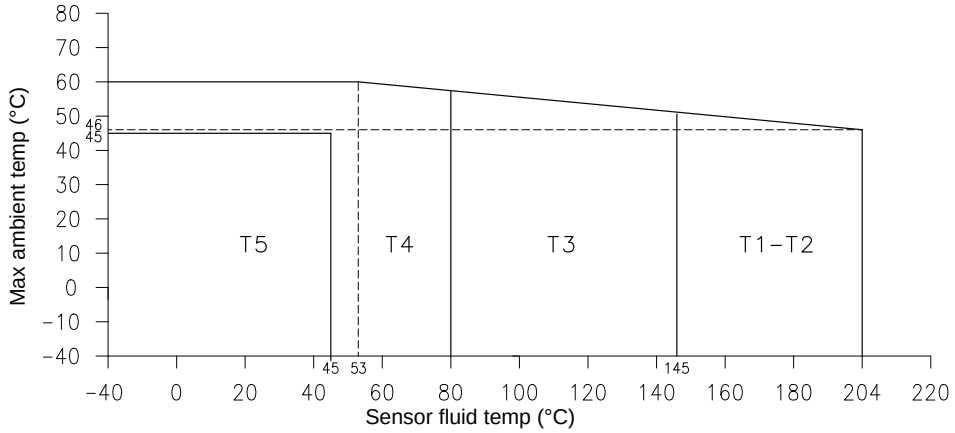
High-temperature models CMF200A, CMF200B, CMF300A, CMF300B, CMF400A, or CMF400B with junction box connected to MVD transmitter



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2:T 290 °C, T1:T 363 °C. The minimum ambient and process fluid temperature allowed for dust is –40 °C.
The use of the sensor at an ambient temperature higher than +55°C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range	Ta	–50 °C to +55 °C

Models CMF010, CMF025, CMF050, CMF100, CMF200 or CMF300 with core processor[(1)]



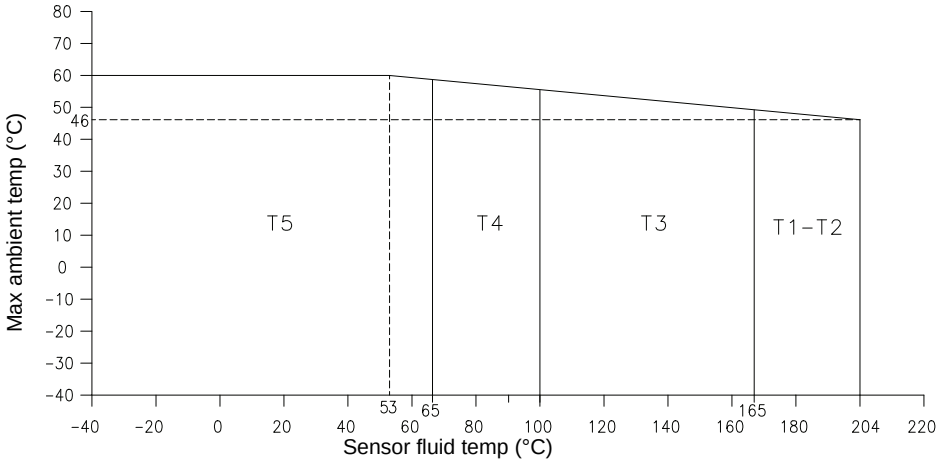
Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T5:T 95°C, T4:T 130°C, T3:T 195°C, T2 to T1:T 254°C.

Ambient temperature range	Ta	–40 °C to +60 °C

(1) Refer to page 26 for "T" rating graph for high-temperature models with core processor.

Hazardous area classifications *continued*

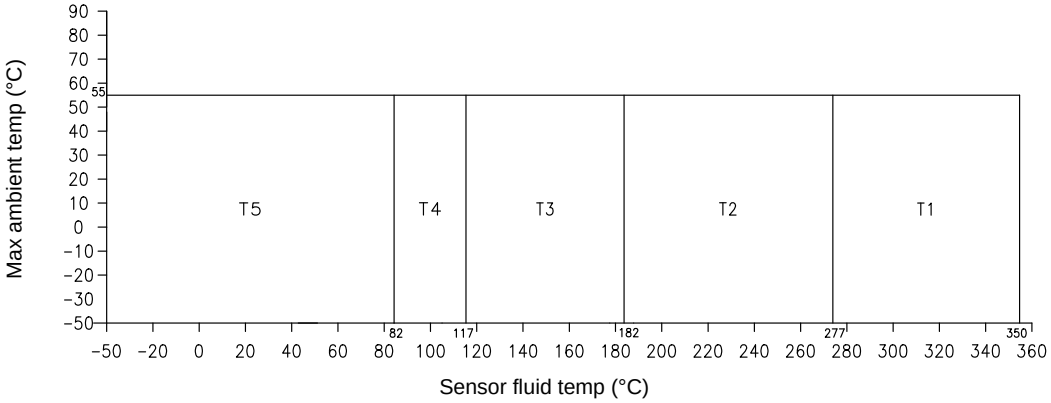
Model CMF400 with core processor



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T5:T 95°C, T4:T 130°C, T3:T 195°C, T2 to T1:T 234°C.

Ambient temperature range	Ta	–40 °C to +60 °C

High-temperature models CMF200A, CMF200B, CMF300A, CMF300B, CMF400A, or CMF400B with core processor or Model 1700/2700 transmitter

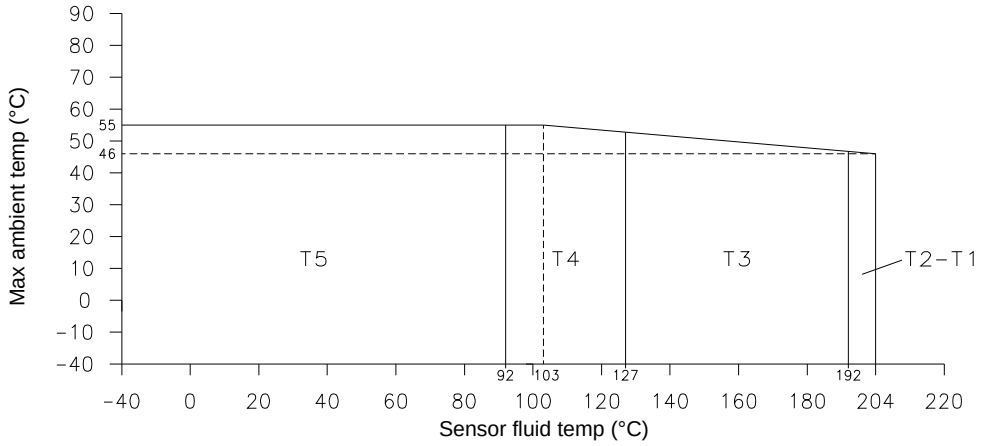


Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: T 290 °C, T1:T 363 °C. The minimum ambient and process fluid temperature allowed for dust is –40 °C.
Since the electronics are mounted approx. 1 meter away from the sensor by means of a flexible stainless steel hose, the use of the sensor at an ambient temperature higher than +55 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range	Ta	–50°C to +55°C

Hazardous area classifications *continued*

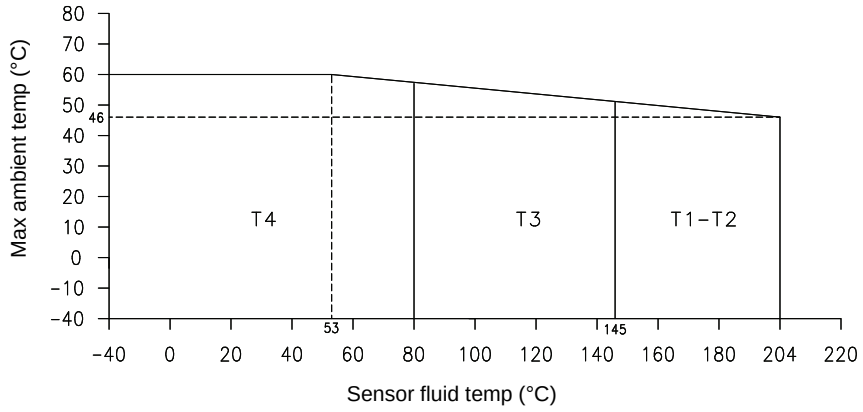
Models CMFS010 or CMFS015 with core processor



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T5:T 95°C, T4:T 130°C, T3:T 195°C, T2 to T1:T 207°C. The minimum ambient and process fluid temperature allowed for dust is –40°C.

Ambient temperature range	Ta	–40 °C to +55 °C

Models CMF010, CMF025, CMF050, CMF100, CMF200, and CMF300 with Model 2200S transmitter

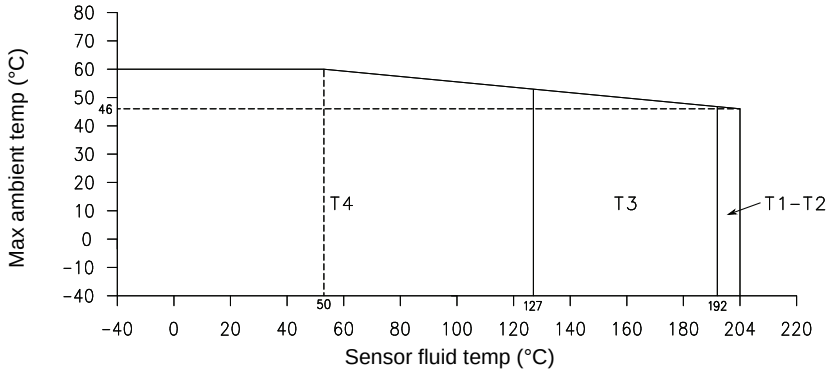


Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T4:T 130°C, T3:T 195°C, T2 to T1:T 254°C.

Ambient temperature range	Ta	–40 °C to +60 °C

Hazardous area classifications *continued*

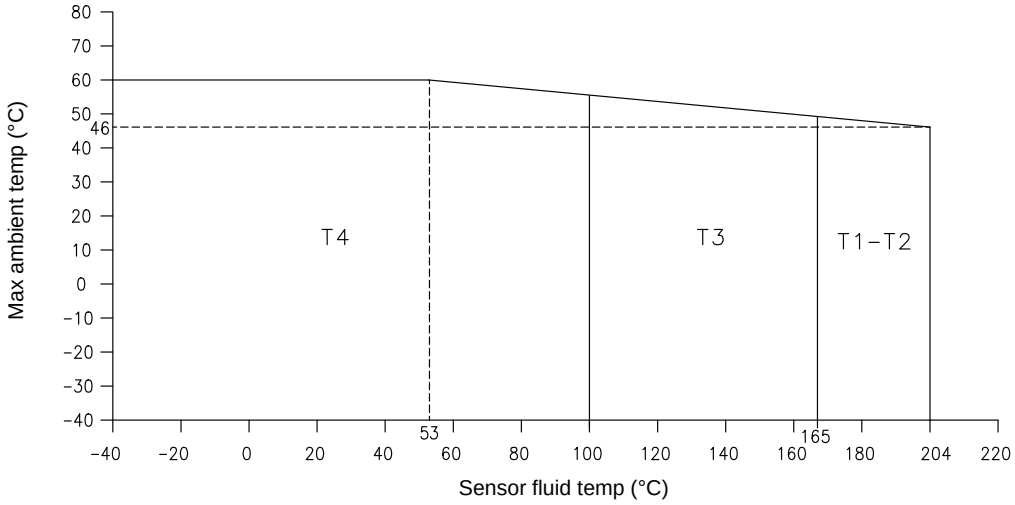
Models CMFS010 and CMFS015 with Model 2200S transmitter



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T4:T 130°C, T3:T 195°C, T2 to T1:T 207°C.

Ambient temperature range	Ta	–40 °C to +60 °C

Models CMF400 with Model 2200S transmitter



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T4:T 130°C, T3:T 195°C, T2 to T1:T 234°C

Ambient temperature range	Ta	–40 °C to +60 °C

Materials of construction

Wetted parts[1][2][3]	304L or 316L stainless steel; or Hastelloy C-22
Housing	304L stainless steel[4]
Junction box	300-series stainless steel[4] or polyurethane-painted aluminum; NEMA 4X (IP66)
Core processor	300-series stainless steel[4] or polyurethane-painted aluminum; NEMA 4X (IP66)
Model 2400S transmitter	Polyurethane-painted aluminum or 316L stainless steel; NEMA 4X (IP66)
Model 2200S transmitter	Polyurethane-painted aluminum or 316L stainless steel; NEMA 4X (IP66/67)

(1) General corrosion guides do not account for cyclical stress, and therefore should not be relied upon when choosing a wetted material for your Micro Motion sensor. Please refer to the Micro Motion corrosion guide for proper material compatibility information.

(2) The outer flange ring on lap-joint type flanges is non-wetted and is 304L stainless steel. Consult factory for other materials.

(3) Models CMF010P, CMFS010P, CMFS015P, and CMF400P have nickel alloy tubes and stainless steel fittings. Material compatibility is never better than 316L stainless steel. Refer to the Micro Motion Corrosion Guide for the Micro Motion policy on fixed bi-metallic sensor capability.

(4) 316L stainless steel is available.

Weight

Weights provided are the weight of the flowmeter with 150 lb weld neck raised face flanges.

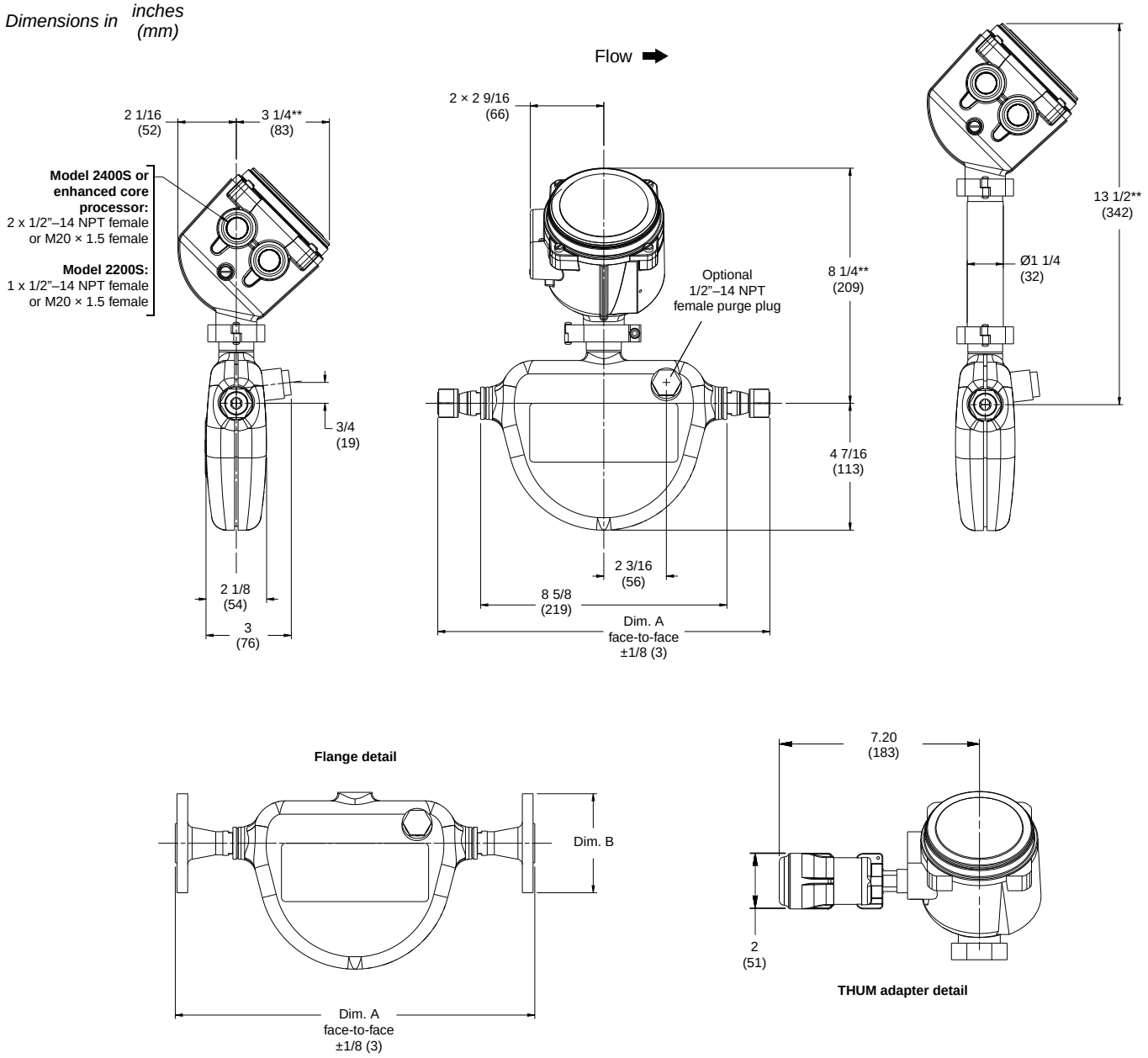
	With junction box		**With core processor, Model 2400S,or Model 2200S transmitter**[1]		**With FMT transmitter**	
	lb	kg	lb	kg	lb	kg
CMFS010	—	—	9	4	12	5
CMFS015	—	—	9	4	12	5
CMF010	14	7	19	9	—	—
CMF025	8	4	13	6	—	—
CMF050	12	6	17	8	—	—
CMF100	29	13	34	16	—	—
CMF200	63	29	68	31	—	—
CMF300	165	75	170	77	—	—
CMF400	441	200	446	202	—	—

(1) Weight stated for sensor with aluminum core processor. Add 4 lb (2 kg) for stainless steel core processor or stainless steel Model 2400S transmitter.

Dimensions

Models CMFS010 and CMFS015 with Model 2200S, Model 2400S, or enhanced core processor

Dimensions in inches (mm)



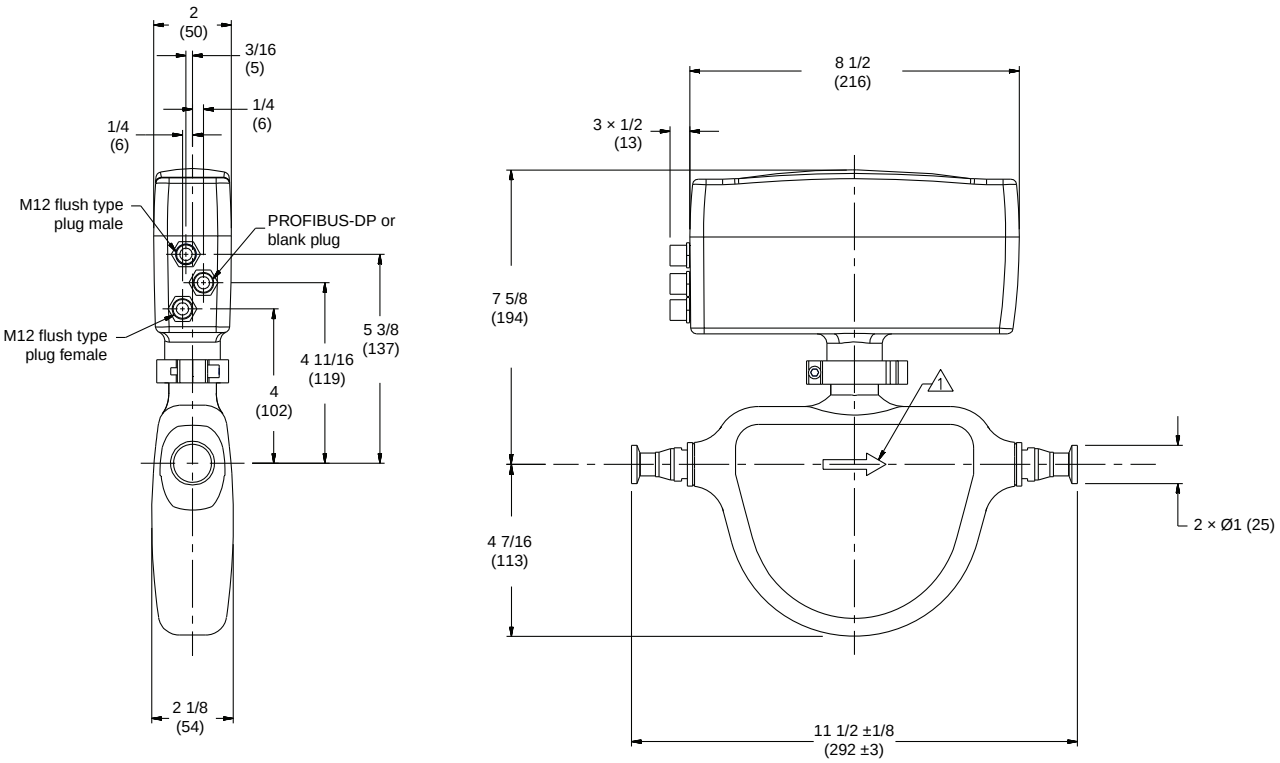
* *For dimensions A and B, see fittings options on pages 41–42.*
** *Electronics with painted aluminum housing shown. For stainless steel housing, add 0.40 inches (10 mm).*

Model	No. of flow tubes	Flow tube ID inches (mm)
CMFS010	2	0.07 (1.8)
CMFS015	2	0.11 (2.9)

Dimensions *continued*

Models CMFS010 and CMFS015 with Filling Mass Transmitter

Dimensions in *inches (mm)*



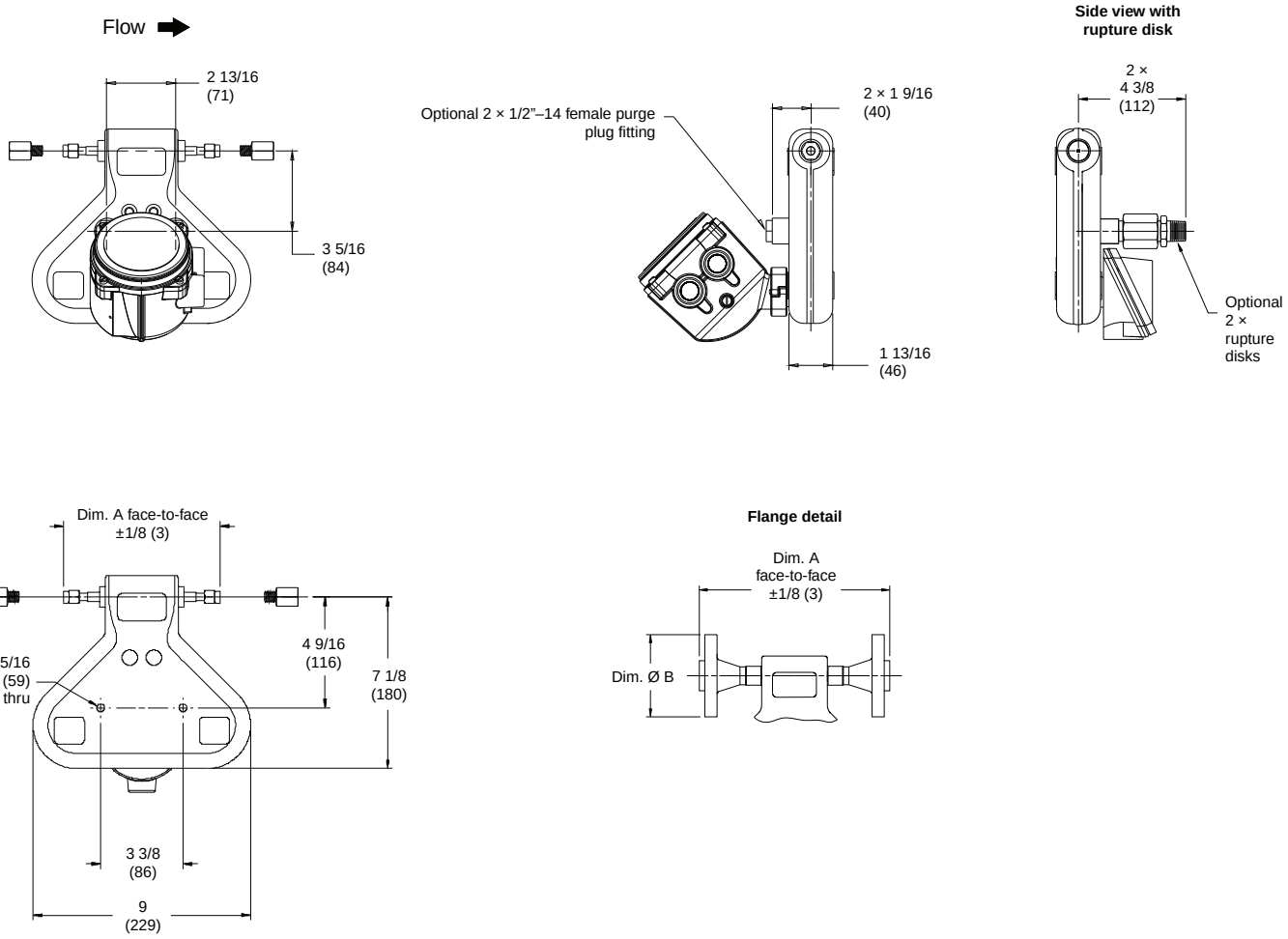
* *For dimensions A and B, see fittings options on page 29.*

Model	No. of flow tubes	Flow tube ID inches (mm)
CMFS010	2	0.07 (1.8)
CMFS015	2	0.11 (2.9)

Dimensions *continued*

Model CMF010

Dimensions in *inches (mm)*



* *For dimensions A and B, see fittings options on pages 43–44.*
** *Dimensions for each electronics option are shown on page 36.*

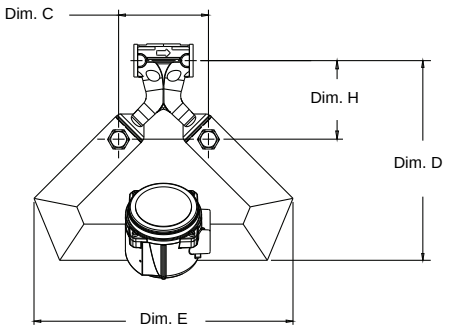
Model	No. of flow tubes	Flow tube ID inches (mm)
CMF010	1	0.11 (2.9)

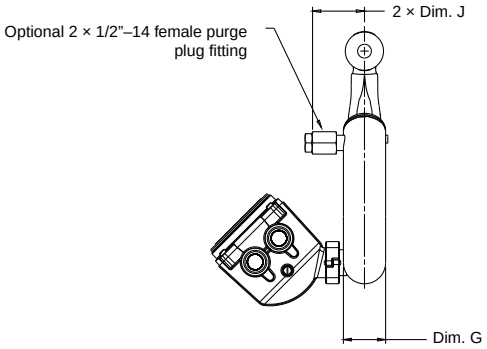
Dimensions *continued*

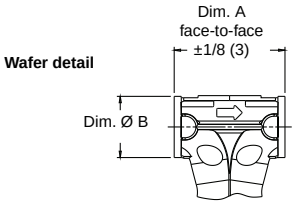
Models CMF025, CMF050, and CMF100

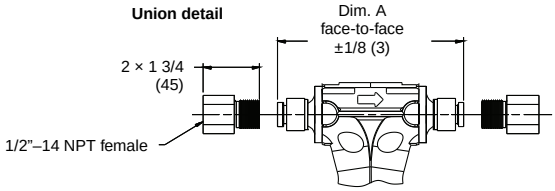
Dimensions in inches (mm)

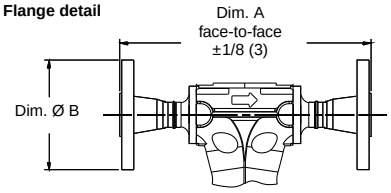
Flow ➡











Model	No. of flow tubes	Dimensions[1][2] in inches (mm)						
		Flow tube ID	C	D	E	G	H	J
CMF025	2	0.21 (5.2)	2 13/16 (72)	8 1/4 (209)	10 (255)	1 5/8 (41)	3 5/16 (85)	2 1/4 (58)
CMF050	2	0.35 (8.8)	5 (126)	11 1/16 (280)	14 5/16 (364)	2 (51)	4 3/8 (111)	2 1/2 (63)
CMF100	2	0.65 (16)	5 15/16 (150)	15 15/16 (405)	21 1/2 (546)	3 9/16 (91)	5 3/8 (136)	3 5/16 (83)

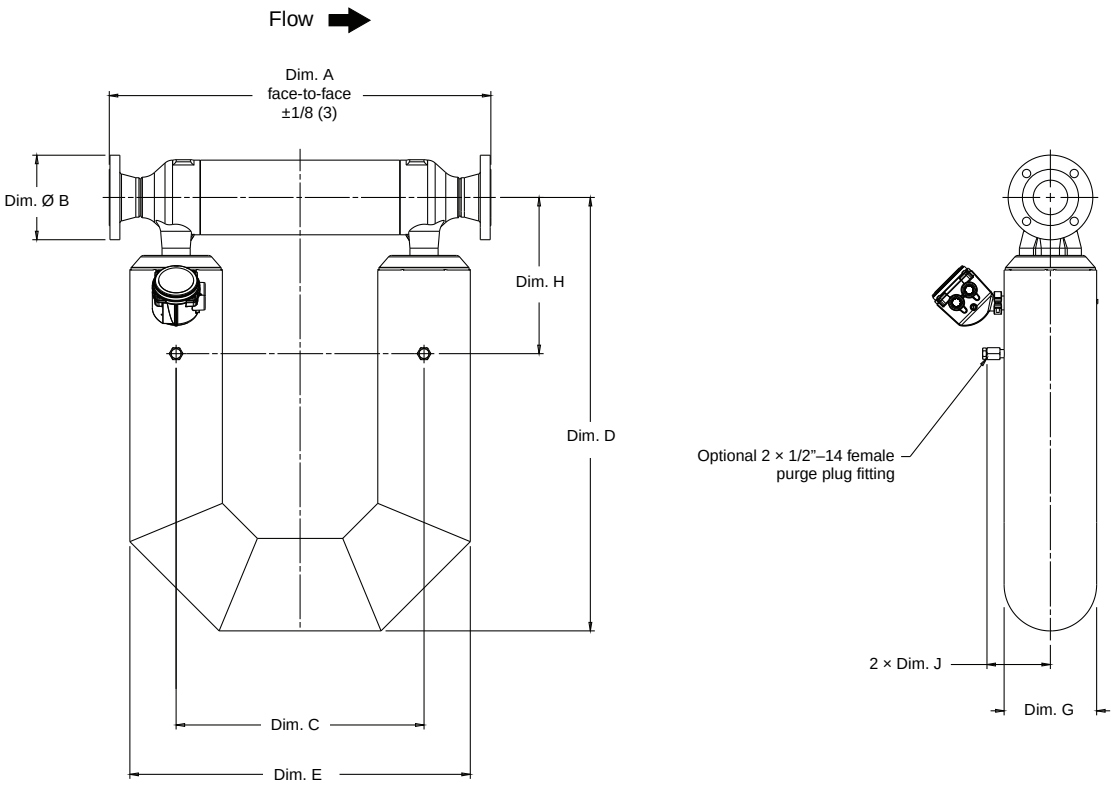
(1) For dimensions A and B, see fittings tables on pages 44–48.

(2) Dimensions for each electronics option are shown on page 36.

Dimensions *continued*

Models CMF200 and CMF300

Dimensions in inches (mm)



Model	No. of flow tubes	Dimensions[1][2] in inches (mm)						
		Flow tube ID	C	D	E	G	H	J
CMF200	2	1.1 (27)	14 (356)	28 5/8 (727)	19 9/16 (497)	5 9/16 (142)	11 7/8 (302)	4 5/16 (110)
CMF300	2	1.8 (45)	22 (559)	38 7/16 (977)	30 3/16 (767)	8 3/16 (209)	13 7/8 (352)	5 5/8 (143)

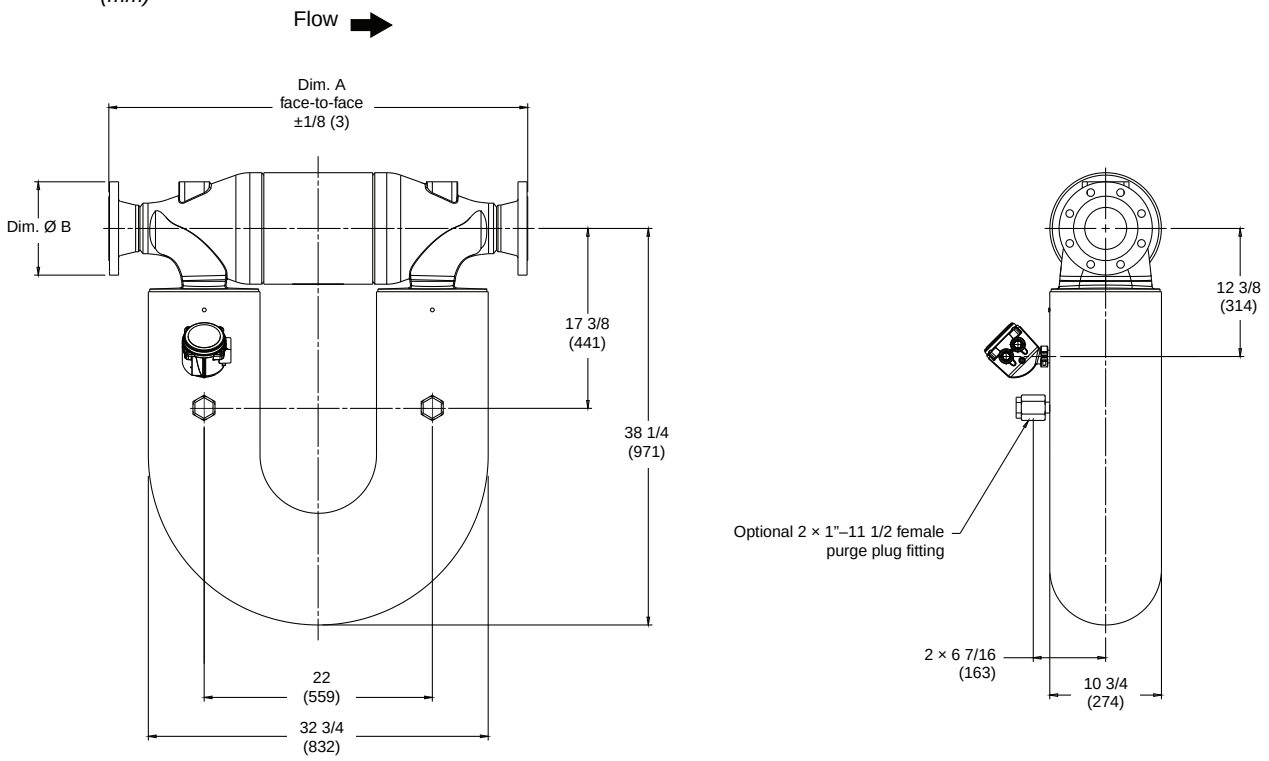
(1) For dimensions A and B, see fittings tables on pages 49–52.

(2) Dimensions for each electronics option are shown on page 36.

Dimensions *continued*

Model CMF400

Dimensions in inches (mm)



* *For dimensions A and B, see fittings options on pages 52–53.*
** *Dimensions for each electronics option are shown on page 36.*

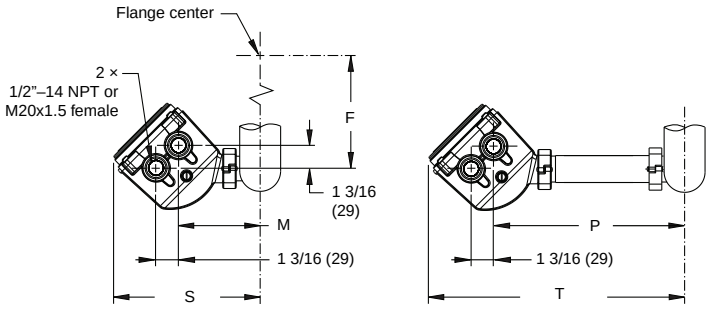
Model	No. of flow tubes	Flow tube ID inches (mm)
CMF400	2	2.9 (73)

Dimensions *continued*

Electronics detail for Models CMF010, CMF025, CMF050, CMF100, CMF200, CMF300, and CMF400

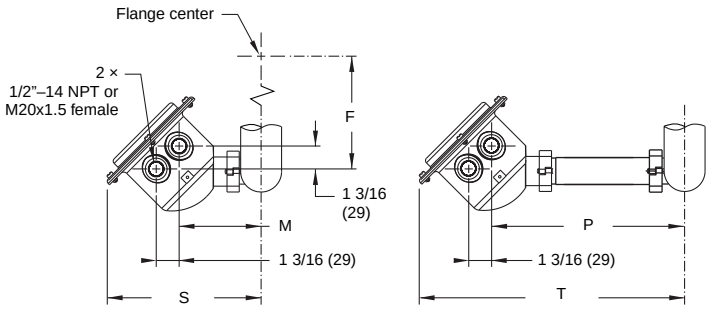
Enhanced core processor, Model 2400S, or Model 2200S with painted aluminum housing

Model	Dimensions in inches (mm)				
	F	M	P	S	T
CMF010	5 13/16 (147)	3 7/8 (98)	9 5/16 (236)	7 1/8 (180)	12 1/2 (318)
CMF025	7 7/16 (188)	3 13/16 (97)	9 5/16 (236)	7 1/16 (179)	12 1/2 (318)
CMF050	10 1/16 (255)	4 1/16 (103)	9 7/16 (240)	7 5/16 (185)	12 11/16 (322)
CMF100	14 1/8 (360)	4 3/4 (121)	10 1/8 (257)	8 (204)	13 3/8 (340)
CMF200	6 7/8 (175)	5 7/8 (150)	11 1/4 (286)	9 1/8 (232)	14 1/2 (368)
CMF300	9 3/8 (238)	7 3/16 (183)	12 5/8 (320)	10 1/2 (266)	15 7/8 (403)
CMF400	12 3/8 (314)	8 7/16 (215)	13 7/8 (352)	11 11/16 (297)	17 1/16 (434)



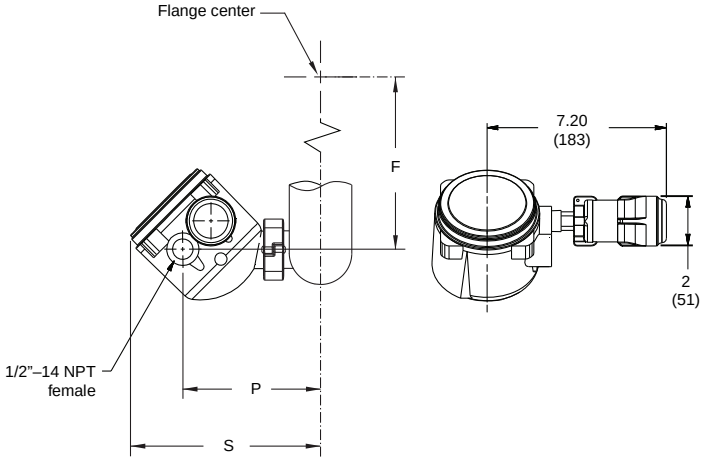
Enhanced core processor, Model 2400S, or Model 2200S with stainless steel housing

Model	Dimensions in inches (mm)				
	F	M	P	S	T
CMF010	5 13/16 (147)	4 1/16 (103)	9 5/16 (236)	7 9/16 (192)	12 13/16 (325)
CMF025	7 7/16 (188)	4 1/16 (103)	9 5/16 (236)	7 9/16 (192)	12 13/16 (325)
CMF050	10 1/16 (255)	4 (102)	9 3/16 (234)	7 9/16 (192)	12 3/4 (324)
CMF100	14 3/16 (360)	4 7/8 (124)	10 1/8 (257)	8 3/8 (213)	13 5/8 (346)
CMF200	6 7/8 (175)	5 3/4 (147)	11 (280)	9 7/16 (239)	14 5/8 (372)
CMF300	9 3/8 (238)	7 1/4 (183)	12 7/16 (316)	10 3/4 (273)	16 (406)
CMF400	12 3/8 (314)	8 1/2 (216)	13 3/4 (349)	12 1/16 (306)	17 1/4 (439)



Model 2200S with THUM adapter

Model	Dimensions in inches (mm)		
	F	P	S
CMF010	5 13/16 (147)	5 3/16 (132)	7 9/16 (192)
CMF025	7 7/16 (188)	5 3/16 (132)	7 9/16 (192)
CMF050	10 1/16 (255)	5 1/8 (130)	7 9/16 (192)
CMF100	14 3/16 (360)	6 (152)	8 3/8 (213)
CMF200	6 7/8 (175)	6 7/8 (175)	9 7/16 (239)
CMF300	9 3/8 (238)	8 5/16 (212)	10 3/4 (273)
CMF400	12 3/8 (314)	9 5/8 (245)	12 1/16 (306)

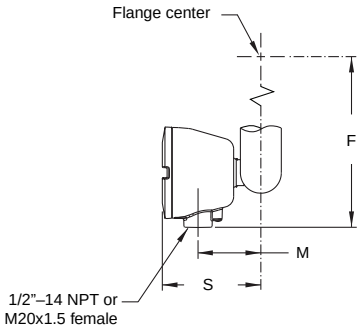


Dimensions *continued*

Electronics detail for Models CMF010, CMF025, CMF050, CMF100, CMF200, CMF300, and CMF400

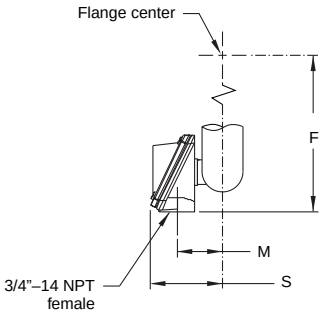
Standard core processor

Model	Dimensions in inches (mm)		
	F	M	S
CMF010	8 7/16 (214)	2 7/8 (73)	4 9/16 (116)
CMF025	10 1/16 (255)	2 15/16 (75)	4 11/16 (119)
CMF050	12 11/16 (322)	3 1/16 (77)	4 3/4 (121)
CMF100	16 13/16 (426)	3 13/16 (96)	5 1/2 (139)
CMF200	9 1/2 (241)	4 13/16 (122)	6 1/2 (165)
CMF300	11 15/16 (303)	6 1/8 (155)	7 13/16 (199)
CMF400	15 (380)	7 3/8 (188)	9 1/8 (231)



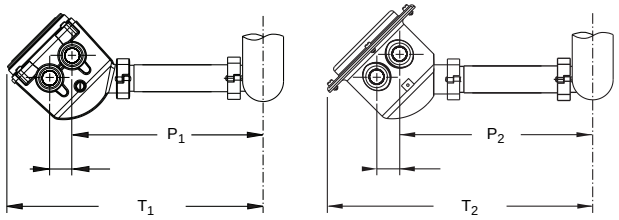
Junction box

Model	Dimensions in inches (mm)		
	F	M	S
CMF010	7 3/4 (197)	2 (50)	3 5/16 (84)
CMF025	9 11/16 (246)	2 1/16 (53)	3 7/16 (87)
CMF050	12 (305)	2 3/16 (55)	3 1/2 (89)
CMF100	16 1/8 (409)	2 15/16 (74)	4 1/4 (108)
CMF200	8 13/16 (223)	3 15/16 (100)	5 1/4 (134)
CMF300	11 1/4 (286)	5 1/4 (133)	6 9/16 (167)
CMF400	14 5/16 (363)	6 3/8 (162)	7 11/16 (195)



Extended 9-wire junction box

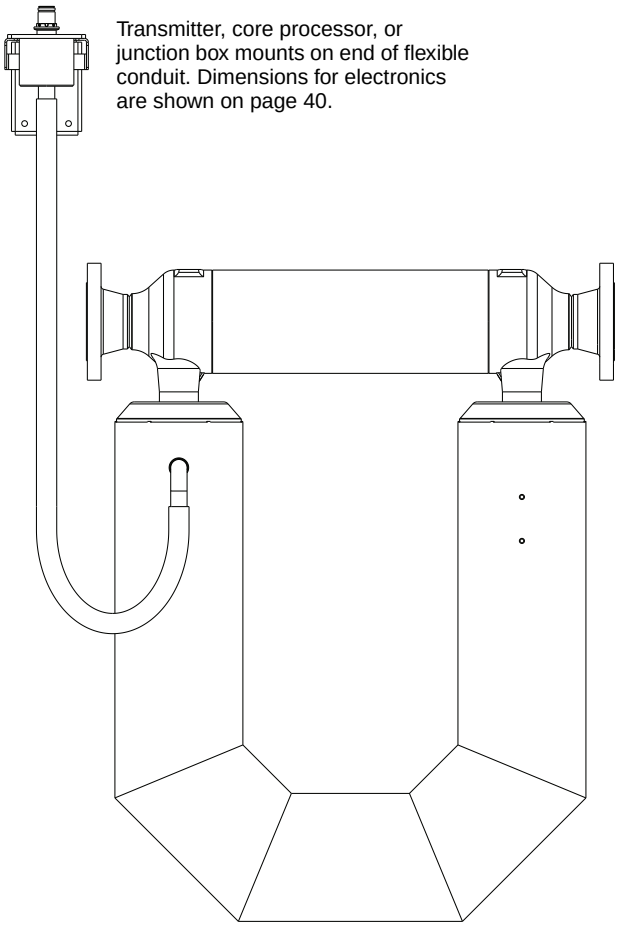
Model	Dimensions in inches (mm)			
	P_1	P_2	T_1	T_2
CMF010	9 5/16 (236)	9 5/16 (236)	12 1/2 (318)	12 13/16 (325)
CMF025	9 5/16 (236)	9 5/16 (236)	12 1/2 (318)	12 13/16 (325)
CMF050	9 7/16 (240)	9 3/16 (234)	12 11/16 (322)	12 3/4 (324)
CMF100	10 1/8 (257)	10 1/8 (257)	13 3/8 (340)	13 5/8 (346)
CMF200	11 1/4 (286)	11 (280)	14 1/2 (368)	14 5/8 (372)
CMF300	12 5/8 (320)	12 7/16 (316)	15 7/8 (403)	16 (406)
CMF400	13 7/8 (352)	13 3/4 (349)	17 1/16 (434)	17 1/4 (439)



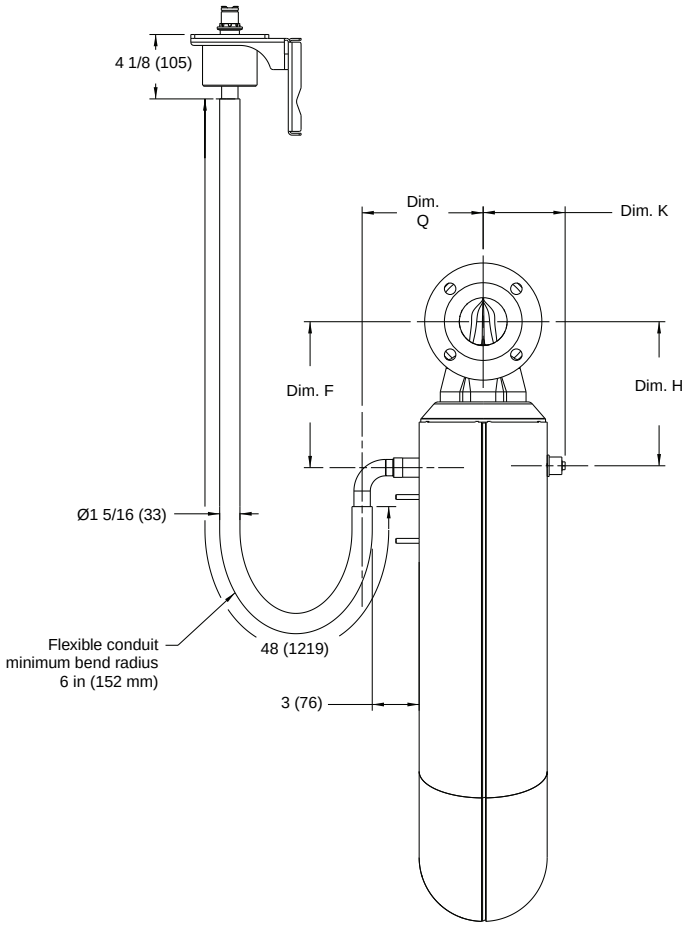
Dimensions *continued*

High-temperature Models CMF200A, CMF200B, CMF300A, and CMF300B

Dimensions in inches (mm)



Transmitter, core processor, or junction box mounts on end of flexible conduit. Dimensions for electronics are shown on page 40.



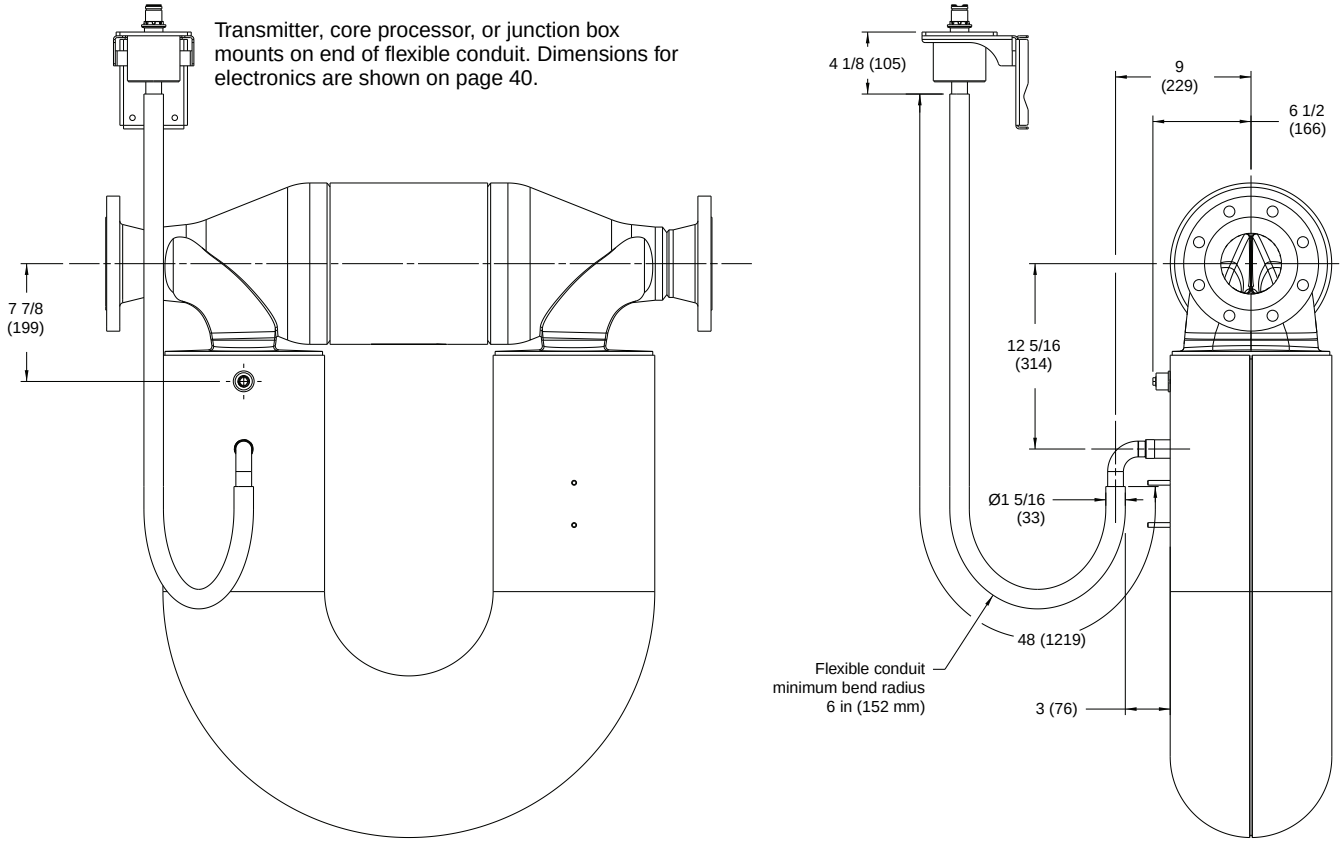
Refer to page 34 for additional sensor dimensions.

Model	Dimensions in inches (mm)			
	F	H	K	Q
CMF200A and CMF200B	6 7/8 (175)	6 5/16 (160)	3 15/16 (100)	6 7/16 (163)
CMF300A and CMF300B	9 3/8 (238)	9 1/4 (235)	5 1/4 (134)	7 3/4 (197)

Dimensions *continued*

High-temperature Models CMF400A and CMF400B

Dimensions in *inches (mm)*

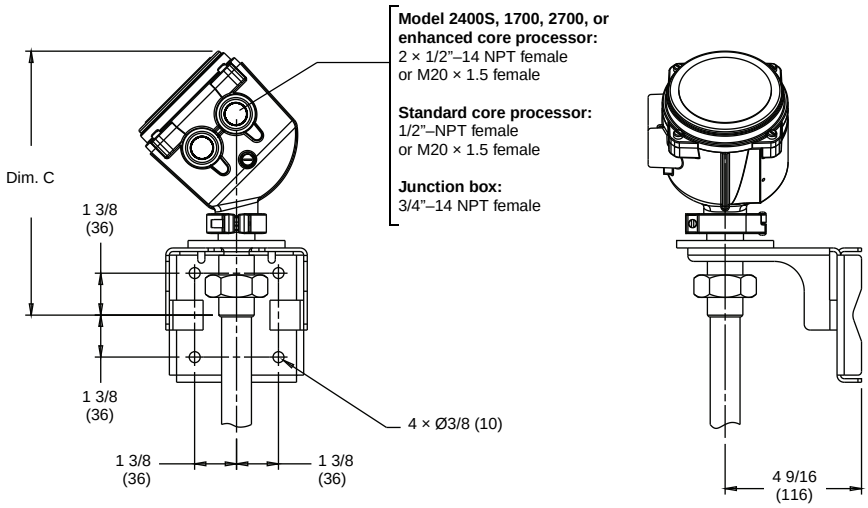

Transmitter, core processor, or junction box mounts on end of flexible conduit. Dimensions for electronics are shown on page 40.
4 1/8 (105)
9 (229)
6 1/2 (166)
7 7/8 (199)
12 5/16 (314)
Ø1 5/16 (33)
48 (1219)
Flexible conduit minimum bend radius 6 in (152 mm)
3 (76)

Refer to page 35 for additional sensor dimensions.

Dimensions *continued*

Electronics mounted on high-temperature sensor flexible conduit

Dimensions in inches (mm)



Electronics interface option		Dimension C in inches (mm)
0	Model 2400S transmitter, painted aluminum housing	8 7/8 (225)
	Model 2400S transmitter, stainless steel housing	9 1/4 (235)
2	Enhanced core processor, painted aluminum housing	8 7/8 (225)
3	Enhanced core processor, stainless steel housing	9 1/4 (235)
Q	Standard core processor, painted aluminum housing	6 5/16 (161)
A	Standard core processor, stainless steel housing	6 5/16 (161)
C	Model 1700/2700 transmitter	10 1/4 (261)
R	Junction box, painted aluminum housing	3 9/16 (91)
S	Junction box, stainless steel housing	3 9/16 (91)

Fitting options

Dimensions are in inches (mm). Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.

Models CMFS010M and CMFS015M

Code	Description						Dim. A	Dim. B
172	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	12.37 (314)	4 1/2 (115)
176	DN15	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	12.21 (310)	3 3/4 (95)
177	DN15	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	12.76 (324)	4 1/8 (105)
178	DN15	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	12.76 (324)	4 1/8 (105)
183	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	12.37 (314)	4 1/2 (115)
300	DN15	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	12.21 (310)	3 3/4 (95)
301	DN15	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	12.21 (310)	3 3/4 (95)
302	DN15	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	12.76 (324)	4 1/8 (105)
303	DN15	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	12.76 (324)	4 1/8 (105)
304	15mm	10K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	11.98 (304)	3 3/4 (95)
305	15mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	11.98 (304)	3 3/4 (95)
310	DN15	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	12.21 (310)	3 3/4 (95)
313	1/2”	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	12.64 (321)	3 1/2 (89)
314	1/2”	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	13.00 (330)	3 3/4 (95)
315	1/2”	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	13.50 (343)	3 3/4 (95)
319	#8		VCO	316/316L	Swagelok compatible fitting	1/2” 316 NPT female adapter	11.52 (293)	—
321[(1)]	1/2”		Tri-Clamp compatible	316L	Hygienic fitting		11.52 (293)	1 (25)
323	#4		VCO	316/316L	Swagelok compatible fitting	1/4” NPT female adapter	12.16 (309)	—
324	#4		VCO	316/316L	Swagelok compatible fitting	1/4” tube compression fitting adapter	12.16 (309)	—
325	#4		VCO	316/316L	Swagelok compatible fitting	6mm tube compression fitting adapter	12.16 (309)	—
334	#4		VCO	316/316L	Swagelok compatible fitting		12.16 (309)	—
335	#8		VCO	316/316L	Swagelok compatible fitting		11.52 (293)	—
344[(2)]	3/4”		Tri-Clamp compatible	316L	Hygienic fitting		11.52 (293)	1.0 (25)
345[(2)]	DN10		ISO 2852/ ISO 1127	316L	Hygienic fitting		11.2 (284)	1.34 (34)
346[(2)]	DN15		ISO 2852/ DIN 11850	316L	Hygienic fitting		11.2 (284)	1.34 (34)

(1) Sensor is 3A authorized but not EHEDG certified when ordered with fitting code 321.

(2) Sensor is 3A authorized and EHEDG certified when ordered with fitting code 344, 345, or 346.

Fitting options *continued*

Models CMFS010H and CMFS015H

Code	Description						Dim. A	Dim. B
323	#4		VCO	N06022	Swagelok compatible fitting	1/4-inch N10276 NPT female adapter	12.16 (309)	—
334	#4		VCO	N06022	Swagelok compatible fitting		12.16 (309)	—
520	1/2-inch	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	12.64 (321)	3 1/2 (89)
521	1/2-inch	CL300	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	13.00 (330)	3 3/4 (95)
522	15mm	10K	JIS B 2220	F304/F304L	Lap joint flange	N06022 stub	12.98 (330)	3 3/4 (95)
523	DN15	PD40	DIN 2656	F304/F304L	Lap joint flange	Type C face, N06022 stub	13.22 (336)	3 3/4 (95)
524	DN15	PD40	EN 1092-1	F304/F304L	Lap joint flange	Form B1, N06022 stub	13.22 (336)	3 3/4 (95)

Models CMFS010P and CMFS015P

Code	Description						Dim. A	Dim. B
150	1/2”	CL900/ 1500	ASME B16.5	F316/F316L	Weld neck flange	Raised face	14.48 (368)	4.75 (121)
191	1/2”	CL2500	ASME B16.5	F316/F316L	Weld neck flange	Raised face	15.48 (393)	5.25 (133)
319	#8		VCO	316/316L	Swagelok compatible fitting	1/2” 316 NPT female adapter	11.52 (293)	—
323	#4		VCO	316/316L	Swagelok compatible fitting	1/4” NPT female adapter	12.16 (309)	—
324	#4		VCO	316/316L	Swagelok compatible fitting	1/4” tube compression fitting adapter	12.16 (309)	—
325	#4		VCO	316/316L	Swagelok compatible fitting	6mm tube compression fitting adapter	12.16 (309)	—
334	#4		VCO	316/316L	Swagelok compatible fitting		12.16 (309)	—
335	#8		VCO	316/316L	Swagelok compatible fitting		11.52 (293)	—

Fitting options *continued*

Model CMF010M

Code	Description						Dim. A	Dim. B
172	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	7 9/16 (193)	4 1/2 (115)
176	DN15	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	7 7/16 (189)	3 3/4 (95)
177	DN15	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	8 (203)	4 1/8 (105)
178	DN15	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	8 (203)	4 1/8 (105)
183	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	7 9/16 (193)	4 1/2 (115)
300	DN15	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	7 7/16 (189)	3 3/4 (95)
302	DN15	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	8 (203)	4 1/8 (105)
304	15mm	10K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	7 3/16 (183)	3 3/4 (95)
305	15mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	7 3/16 (183)	3 3/4 (95)
310	DN15	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	7 7/16 (189)	3 3/4 (95)
313	1/2”	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	7 7/8 (199)	3 1/2 (89)
314	1/2”	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	8 3/16 (209)	3 3/4 (95)
315	1/2”	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	8 11/16 (221)	3 3/4 (95)
321	1/2”		Tri-Clamp compatible	316L	Hygienic fitting		6 15/16 (177)	1 (25)
323	#4		VCO	316/316L	Swagelok compatible fitting	1/4” NPT female adapter	6 7/16 (164)	—
324	#4		VCO	316/316L	Swagelok compatible fitting	1/4” tube compression fitting adapter	6 7/16 (164)	—
325	#4		VCO	316/316L	Swagelok compatible fitting	6mm tube compression fitting adapter	6 7/16 (164)	—
334	#4		VCO	316/316L	Swagelok compatible fitting		6 7/16 (164)	—

Model CMF010H

Code	Description						Dim. A	Dim. B
323	#4		VCO	N06022	Swagelok compatible fitting	1/4-inch N10276 NPT female adapter	6 7/16 (164)	—
334	#4		VCO	N06022	Swagelok compatible fitting		6 7/16 (164)	—
520	1/2”	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	7 7/8 (199)	3 1/2 (89)
521	1/2”	CL300	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	8 3/16 (209)	3 3/4 (95)
522	15mm	10K	JIS B 2220	F304/F304L	Lap joint flange	N06022 stub	8 3/16 (208)	3 3/4 (95)
523	DN15	PN40	DIN 2656	F304/F304L	Lap joint flange	Type C face, N06022 stub	9 7/16 (240)	3 3/4 (95)
52413	DN15	PN40	EN 1092-1	F304/F304L	Lap joint flange	Form B1, N06022 stub	9 7/16 (240)	3 3/4 (95)

Fitting options *continued*

Model CMF010L

Code	Description						Dim. A	Dim. B
413	1/2”	CL150	ASME B16.5	F304/F304L	Weld neck flange	Raised face	7 7/8 (199)	3 1/2 (89)
414	1/2”	CL300	ASME B16.5	F304/F304L	Weld neck flange	Raised face	8 3/16 (209)	3 3/4 (95)
421	DN15	PN40	EN 1092-1	F304/F304L	Weld neck flange	Form B1	7 7/16 (189)	3 3/4 (95)
423	DN15	PN40	DIN 2526	F304/F304L	Weld neck flange	Type C face	7 7/16 (189)	3 3/4 (95)

Model CMF010P

Code	Description						Dim. A	Dim. B
323	#4		VCO	316/316L	Swagelok compatible fitting	1/4” NPT female adapter	6 7/16 (164)	—
324	#4		VCO	316/316L	Swagelok compatible fitting	1/4” tube compression fitting adapter	6 7/16 (164)	—
325	#4		VCO	316/316L	Swagelok compatible fitting	6mm tube compression fitting adapter	6 7/16 (164)	—
334	#4		VCO	316/316L	Swagelok compatible fitting		6 7/16 (164)	—

Model CMF025M

Code	Description						Dim. A	Dim. B
009	1/2”	CL150/ 300 bolt kit	ASME B16.5	F316/F316L	Wafer style flange		2 3/8 (60)	1 13/16 (46)
016	DN15	PN40 bolt kit	DIN 2526	F316/F316L	Wafer style flange	Type C face	2 3/8 (60)	1 13/16 (46)
017	DN15	PN40 bolt kit	DIN 2512	F316/F316L	Wafer style flange	Type N grooved face	2 3/8 (60)	1 13/16 (46)
018	DN15	PN100 bolt kit	DIN 2526	F316/F316L	Wafer style flange	Type E face	2 3/8 (60)	1 13/16 (46)
019	DN15	PN100 bolt kit	DIN 2512	F316/F316L	Wafer style flange	Type N grooved face	2 3/8 (60)	1 13/16 (46)
029	15mm	10K/ 20K bolt kit	JIS B 2220	F316/F316L	Wafer style flange		2 3/8 (60)	1 13/16 (46)
172	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	6 7/16 (164)	4 1/2 (115)
176	DN15	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	6 5/16 (160)	3 3/4 (95)
177	DN15	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	6 15/16 (176)	4 1/8 (105)
178	DN15	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	6 15/16 (176)	4 1/8 (105)
183	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	6 7/16 (164)	4 1/2 (115)
300	DN15	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	6 5/16 (160)	3 3/4 (95)
301	DN15	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	6 5/16 (160)	3 3/4 (95)
302	DN15	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	6 15/16 (176)	4 1/8 (105)

Fitting options *continued*

Model CMF025M *continued*

Code	Description						Dim. A	Dim. B
303	DN15	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	6 15/16 (176)	4 1/8 (105)
304	15mm	10K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	6 1/8 (156)	3 3/4 (95)
305	15mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	6 1/8 (156)	3 3/4 (95)
310	DN15	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	6 5/16 (160)	3 3/4 (95)
313	1/2”	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	6 3/4 (172)	3 1/2 (89)
314	1/2”	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	7 1/8 (181)	3 3/4 (95)
315	1/2”	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	7 5/8 (194)	3 3/4 (95)
319	#8		VCO	316/316L	Swagelok compatible fitting	1/2” NPT female adapter	4 11/16 (119)	—
321	1/2”		Tri-Clamp compatible	316L	Hygienic fitting		4 11/16 (119)	1 (25)
335	#8		VCO	316/316L	Swagelok compatible fitting		4 11/16 (119)	—

Model CMF025L

Code	Description						Dim. A	Dim. B
413	1/2”	CL150	ASME B16.5	F304/F304L	Weld neck flange	Raised face	6 3/4 (172)	3 1/2 (89)
414	1/2”	CL300	ASME B16.5	F304/F304L	Weld neck flange	Raised face	7 1/8 (181)	3 3/4 (95)
421	DN15	PN40	EN 1092-1	F304/F304L	Weld neck flange	Form B1	6 5/16 (160)	3 3/4 (95)
423	DN15	PN40	DIN 2526	F304/F304L	Weld neck flange	Type C face	6 5/16 (160)	3 3/4 (95)

Model CMF025H

Code	Description						Dim. A	Dim. B
520	1/2”	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	6 3/4 (172)	3 1/2 (89)
521	1/2”	CL300	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	7 1/8 (181)	3 3/4 (95)
522	15mm	10K	JIS B 2220	F304/F304L	Lap joint flange	N06022 stub	7 1/8 (181)	3 3/4 (95)
523	DN15	PN40	DIN 2656	F304/F304L	Lap joint flange	Type C face, N06022 stub	7 5/16 (186)	3 3/4 (95)
524	DN15	PN40	EN 1092-1	F304/F304L	Lap joint flange	Form B1, N06022 stub	7 5/16 (186)	3 3/4 (95)

Fitting options *continued*

Model CMF050M

Code	Description						Dim. A	Dim. B
009	1/2”	CL150/ 300 bolt kit	ASME B16.5	F316/F316L	Wafer style flange		3 1/2 (89)	1 13/16 (46)
016	DN15	PN40 bolt kit	DIN 2526	F316/F316L	Wafer style flange	Type C face	3 1/2 (89)	1 13/16 (46)
017	DN15	PN40 bolt kit	DIN 2512	F316/F316L	Wafer style flange	Type N grooved face	3 1/2 (89)	1 13/16 (46)
018	DN15	PN100 bolt kit	DIN 2526	F316/F316L	Wafer style flange	Type E face	3 1/2 (89)	1 13/16 (46)
019	DN15	PN100 bolt kit	DIN 2512	F316/F316L	Wafer style flange	Type N grooved face	3 1/2 (89)	1 13/16 (46)
029	15mm	10K/ 20K bolt kit	JIS B 2220	F316/F316L	Wafer style flange		3 1/2 (89)	1 13/16 (46)
172	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	7 11/16 (195)	4 1/2 (115)
176	DN15	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	7 1/2 (191)	3 3/4 (95)
177	DN15	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	8 1/16 (205)	4 1/8 (105)
178	DN15	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	8 1/16 (205)	4 1/8 (105)
183	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	7 11/16 (195)	4 1/2 (115)
300	DN15	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	7 1/2 (191)	3 3/4 (95)
301	DN15	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	7 1/2 (191)	3 3/4 (95)
302	DN15	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	8 1/16 (205)	4 1/8 (105)
303	DN15	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	8 1/16 (205)	4 1/8 (105)
304	15mm	10K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	7 1/4 (184)	3 3/4 (95)
305	15mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	7 1/4 (184)	3 3/4 (95)
310	DN15	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	7 1/2 (191)	3 3/4 (95)
313	1/2”	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	7 15/16 (202)	3 1/2 (89)
314	1/2”	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	8 5/16 (211)	3 3/4 (95)
315	1/2”	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	8 13/16 (224)	3 3/4 (95)
319	#8		VCO	316/316L	Swagelok compatible fitting	1/2” NPT female adapter	6 7/8 (175)	—
320	#12		VCO	316/316L	Swagelok compatible fitting	3/4” NPT female adapter	6 1/2 (165)	—
322	3/4”		Tri-Clamp compatible	316L	Hygienic fitting		6 1/2 (165)	1 (25)
336	#12		VCO	316/316L	Swagelok compatible fitting		6 1/2 (165)	—

Fitting options *continued*

Model CMF050L

Code	Description						Dim. A	Dim. B
413	1/2”	CL150	ASME B16.5	F304/F304L	Weld neck flange	Raised face	7 15/16 (202)	3 1/2 (89)
414	1/2”	CL300	ASME B16.5	F304/F304L	Weld neck flange	Raised face	8 5/16 (211)	3 3/4 (95)
421	DN15	PN40	EN 1092-1	F304/F304L	Weld neck flange	Form B1	7 1/2 (191)	3 3/4 (95)
423	DN15	PN40	DIN 2526	F304/F304L	Weld neck flange	Type C face	7 1/2 (191)	3 3/4 (95)

Model CMF050H

Code	Description						Dim. A	Dim. B
520	1/2”	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	7 15/16 (202)	3 1/2 (89)
521	1/2”	CL300	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	8 5/16 (211)	3 3/4 (95)
522	15mm	10K	JIS B 2220	F304/F304L	Lap joint flange	N06022 stub	8 1/4 (210)	3 3/4 (95)
523	DN15	PN40	DIN 2656	F304/F304L	Lap joint flange	Type C face, N06022 stub	8 1/2 (216)	3 3/4 (95)
524	DN15	PN40	EN 1092-1	F304/F304L	Lap joint flange	Form B1, N06022 stub	8 1/2 (216)	3 3/4 (95)

Model CMF100M

Code	Description						Dim. A	Dim. B
010	1"	CL150 bolt kit	ASME B16.5	F316/F316L	Wafer style flange		4 (102)	2 1/2 (64)
011	1"	CL300/ 600 bolt kit	ASME B16.5	F316/F316L	Wafer style flange		4 (102)	2 1/2 (64)
020	DN25	PN40 bolt kit	DIN 2526	F316/F316L	Wafer style flange	Type C face	4 (102)	2 1/2 (64)
021	DN25	PN40 bolt kit	DIN 2512	F316/F316L	Wafer style flange	Type N grooved face	4 (102)	2 1/2 (64)
022	DN25	PN100 bolt kit	DIN 2526	F316/F316L	Wafer style flange	Type E face	4 (102)	2 1/2 (64)
023	DN25	PN100 bolt kit	DIN 2512	F316/F316L	Wafer style flange	Type N grooved face	4 (102)	2 1/2 (64)
030	25mm	10K/ 20K bolt kit	JIS B 2220	F316/F316L	Wafer style flange		4 (102)	2 1/2 (64)
179	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	8 5/16 (211)	4 1/2 (115)
180	DN25	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	9 11/16 (246)	5 1/2 (140)
181	DN25	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	9 11/16 (246)	5 1/2 (140)
306	DN25	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	8 5/16 (211)	4 1/2 (115)
307	DN25	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	8 5/16 (211)	4 1/2 (115)
308	DN25	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	9 11/16 (246)	5 1/2 (140)
309	DN25	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	9 11/16 (246)	5 1/2 (140)
311	DN25	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	8 5/16 (211)	4 1/2 (115)

Fitting options *continued*

Model CMF100M *continued*

Code	Description						Dim. A	Dim. B
317	25mm	10K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	8 5/16 (211)	4 15/16 (125)
318	25mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	8 5/16 (211)	4 15/16 (125)
328	1"	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	9 1/4 (235)	4 1/4 (108)
329	1"	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	9 3/4 (248)	4 7/8 (124)
330	1"	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	10 1/4 (260)	4 7/8 (124)
331	1-1/2”	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	10 7/8 (276)	6 1/8 (156)
339	1"		Tri-Clamp compatible	316L	Hygienic fitting		8 3/8 (213)	2 (50)

Model CMF100L

Code	Description						Dim. A	Dim. B
415	1"	CL150	ASME B16.5	F304/F304L	Weld neck flange	Raised face	9 1/4 (235)	4 1/4 (108)
416	1"	CL300	ASME B16.5	F304/F304L	Weld neck flange	Raised face	9 3/4 (248)	4 7/8 (124)
422	DN25	PN40	EN 1092-1	F304/F304L	Weld neck flange	Form B1	8 9/16 (217)	4 1/2 (115)
424	DN25	PN40	DIN 2526	F304/F304L	Weld neck flange	Type C face	8 9/16 (217)	4 1/2 (115)

Model CMF100H

Code	Description						Dim. A	Dim. B
530	1"	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	9 1/4 (235)	4 1/4 (108)
531	1"	CL300	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	9 3/4 (248)	4 7/8 (124)
532	25mm	10K	JIS B 2220	F304/F304L	Lap joint flange	N06022 stub	9 5/16 (237)	4 15/16 (125)
533	DN25	PN40	DIN 2656	F304/F304L	Lap joint flange	Type C face, N06022 stub	9 9/16 (243)	4 1/2 (115)
534	DN25	PN40	EN 1092-1	F304/F304L	Lap joint flange	Form B1, N06022 stub	9 9/16 (243)	4 1/2 (115)

Fitting options *continued*

Models CMF200M and CMF200A

Code	Description						Dim. A	Dim. B
312	DN40	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	21 9/16 (547)	5 15/16 (150)
316	DN50	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	21 3/4 (553)	6 1/2 (165)
341	1-1/2-inch	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	22 7/8 (581)	5 (127)
342	1-1/2-inch	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	23 3/8 (594)	6 1/8 (156)
343	1-1/2-inch	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	23 7/8 (606)	6 1/8 (156)
351(1)	1-1/2-inch		Tri-Clamp compatible	316L	Hygienic fitting		21 3/8 (543)	2 (51)
352(1)	2-inch		Tri-Clamp compatible	316L	Hygienic fitting		21 3/8 (543)	2 1/2 (64)
363	DN40	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	22 7/8 (580)	6 11/16 (170)
365	DN50	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	23 5/16 (593)	7 11/16 (195)
366	DN40	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	22 7/8 (580)	6 11/16 (170)
367	DN50	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	23 5/16 (593)	7 11/16 (195)
368	DN40	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	21 9/16 (547)	5 15/16 (150)
369	DN50	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	21 3/4 (553)	6 1/2 (165)
377	DN40	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	23 1/8 (587)	6 11/16 (170)
378	DN50	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	23 9/16 (598)	7 11/16 (195)
379	DN40	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	23 1/8 (587)	6 11/16 (170)
380	DN50	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	23 9/16 (598)	7 11/16 (195)
381	DN40	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	21 11/16 (551)	5 15/16 (150)
382	DN50	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	21 15/16 (557)	6 1/2 (165)
383	DN40	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	21 11/16 (551)	5 15/16 (150)
384	DN50	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	21 15/16 (557)	6 1/2 (165)
385	40mm	10K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	21 9/16 (548)	5 1/2 (140)
387	40mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	21 9/16 (548)	5 1/2 (140)
418	2-inch	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	22 7/8 (581)	6 (152)
419	2-inch	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	23 3/8 (594)	6 1/2 (165)
420	2-inch	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	23 5/8 (600)	6 1/2 (165)
B85(2)	50mm	10K	JIS B 2220	A105 Carbon Steel	Lap joint flange	316/316L stub	21 13/16 (554)	6 1/8 (155)
B86(2)	50mm	20K	JIS B 2220	A105 Carbon Steel	Lap joint flange	316/316L stub	21 13/16 (554)	6 1/8 (155)

(1) Available only with Model CMF200M.

(2) Low volume process connection. Consult factory for lead time.

Fitting options *continued*

Model CMF200L

Code	Description						Dim. A	Dim. B
441	1-1/2”	CL150	ASME B16.5	F304/F304L	Weld neck flange	Raised face	22 7/8 (581)	5 (127)
442	1-1/2”	CL300	ASME B16.5	F304/F304L	Weld neck flange	Raised face	23 3/8 (594)	6 1/8 (156)
457	DN40	PN40	EN 1092-1	F304/F304L	Weld neck flange	Form B1	21 9/16 (547)	5 15/16 (150)
458	DN50	PN40	EN 1092-1	F304/F304L	Weld neck flange	Form B1	21 3/4 (553)	6 1/2 (165)
481	DN40	PN40	DIN 2526	F304/F304L	Weld neck flange	Type C face	21 11/16 (551)	5 15/16 (150)
482	DN50	PN40	DIN 2526	F304/F304L	Weld neck flange	Type C face	21 15/16 (557)	6 1/2 (165)
518	2-inch	CL150	ASME B16.5	F304/F304L	Weld neck flange	Raised face	22 7/8 (581)	6 (152)
519	2-inch	CL300	ASME B16.5	F304/F304L	Weld neck flange	Raised face	23 1/2 (597)	6 1/2 (165)

Models CMF200H and CMF200B

Code	Description						Dim. A	Dim. B
540	1-1/2”	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	22 7/8 (581)	5 (127)
541	1-1/2”	CL300	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	23 3/8 (594)	6 1/8 (156)
542	40mm	10K	JIS B 2220	F304/F304L	Lap joint flange	N06022 stub	21 9/16 (548)	5 1/2 (140)
543	DN40	PN40	DIN 2656	F304/F304L	Lap joint flange	Type C face, N06022 stub	21 11/16 (551)	5 15/16 (150)
544	2”	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	22 7/8 (581)	6 (152)
545	2”	CL300	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	23 3/8 (594)	6 1/2 (165)
546	50mm	10K	JIS B 2220	F304/F304L	Lap joint flange	N06022 stub	21 13/16 (554)	6 1/8 (155)
547	DN50	PN40	DIN 2656	F304/F304L	Lap joint flange	Type C face, N06022 stub	21 15/16 (557)	6 1/2 (165)
548	DN40	PN40	EN 1092-1	F304/F304L	Lap joint flange	Form B1, N06022 stub	21 11/16 (551)	5 15/16 (150)
549	DN50	PN40	EN 1092-1	F304/F304L	Lap joint flange	Form B1, N06022 stub	21 15/16 (557)	6 1/2 (165)

Fitting options *continued*

Models CMF300M and CMF300A

Code	Description						Dim. A	Dim. B
326	DN80	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	32 3/4 (832)	7 7/8 (200)
333	DN100	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	33 1/4 (845)	9 1/4 (235)
355	3"	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	33 11/16 (856)	7 1/2 (191)
356	3"	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	34 7/16 (875)	8 1/4 (210)
357	3"	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	35 3/16 (894)	8 1/4 (210)
358[(1)]	3"	CL900	ASME B16.5	F316/F316L	Weld neck flange	Raised face	36 3/4 (933)	9 1/2 (241)
359	DN100	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	35 1/4 (896)	10 7/16 (265)
361	3"		Tri-Clamp compatible	316L	Hygienic fitting		32 (813)	3 9/16 (90)
371	DN80	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	32 3/4 (832)	7 7/8 (200)
372	DN100	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	33 1/4 (845)	9 1/4 (235)
373	DN80	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	34 5/16 (872)	9 1/16 (230)
374	DN100	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	35 1/4 (896)	10 7/16 (265)
375	DN80	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	34 5/16 (872)	9 1/16 (230)
391	DN80	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	32 7/8 (835)	7 7/8 (200)
392	DN100	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	33 1/4 (845)	9 1/4 (235)
393	DN80	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	32 7/8 (835)	7 7/8 (200)
394	DN100	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	33 1/4 (845)	9 1/4 (235)
395	DN80	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	34 9/16 (878)	9 1/16 (230)
396	DN100	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	35 9/16 (903)	10 7/16 (265)
397	DN80	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	34 9/16 (878)	9 1/16 (230)
398	DN100	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	35 9/16 (903)	10 7/16 (265)
400	80mm	10K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	33 3/8 (848)	7 5/16 (186)
402	80mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	33 3/8 (848)	7 7/8 (200)
425	4"	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	34 1/16 (865)	9 (229)
426	4"	CL300	ASME B16.5	F316/ F96316L	Weld neck flange	Raised face	35 (889)	10 (254)
427	4"	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	36 11/16 (932)	10 3/4 (273)
428[(1)]	4"	CL900	ASME B16.5	F316/F316L	Weld neck flange	Raised face	37 1/4 (946)	11 1/2 (292)
B87[(2)]	100mm	10K	JIS B 2220	A105 Carbon Steel	Lap joint flange	316/316L stub	35 9/16 (903)	8 1/4 (210)
B88[(2)]	100mm	20K	JIS B 2220	A105 Carbon Steel	Lap joint flange	316/316L stub	35 9/16 (903)	8 7/8 (225)

(1) Available only with Model CMF300A.

(2) Low volume process connection. Consult factory for lead time.

Fitting options *continued*

Model CMF300L

Code	Description						Dim. A	Dim. B
455	3"	CL150	ASME B16.5	F304/F304L	Weld neck flange	Raised face	33 11/16 (856)	7 1/2 (191)
456	3"	CL300	ASME B16.5	F304/F304L	Weld neck flange	Raised face	34 7/16 (875)	8 1/4 (210)
459	DN80	PN40	EN 1092-1	F304/F304L	Weld neck flange	Form B1	32 3/4 (832)	7 7/8 (200)
491	DN80	PN40	DIN 2526	F304/F304L	Weld neck flange	Type C face	32 7/8 (835)	7 7/8 (200)

Models CMF300H and CMF300B

Code	Description						Dim. A	Dim. B
550	3"	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	33 11/16 (856)	7 1/2 (191)
551	3"	CL300	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	34 7/16 (875)	8 1/4 (210)
552	80mm	10K	JIS B 2220	F304/F304L	Lap joint flange	N06022 stub	33 3/8 (848)	7 5/16 (185)
553	DN80	PN40	DIN 2656	F304/F304L	Lap joint flange	Type C face, N06022 stub	32 7/8 (835)	7 7/8 (200)
554	DN80	PN40	EN 1092-1	F304/F304L	Lap joint flange	Form B1, N06022 stub	32 7/8 (835)	7 7/8 (200)

Models CMF400M and CMF400A

Code	Description						Dim. A	Dim. B
435	4"	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	40 3/16 (1021)	9 (229)
436	4"	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	41 (1041)	10 (254)
437	4"	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	42 11/16 (1084)	10 3/4 (273)
438[(1)]	4"	CL900	ASME B16.5	F316/F316L	Weld neck flange	Raised face	43 3/4 (1111)	11 1/2 (292)
443	DN100	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	39 5/16 (999)	9 1/4 (235)
444	DN150	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form B1	40 1/16 (1018)	11 13/16 (300)
445	DN100	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	41 5/16 (1049)	10 7/16 (265)
446	DN150	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	43 1/4 (1099)	14 (355)
447	DN100	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	41 5/16 (1049)	10 7/16 (265)
448	DN150	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	43 1/4 (1099)	14 (355)
451	6"	CL150	ASME B16.5	F316/F316L	Weld neck flange	Raised face	40 5/16 (1024)	11 (279)
452	6"	CL300	ASME B16.5	F316/F316L	Weld neck flange	Raised face	41 5/16 (1049)	12 1/2 (318)
453	6"	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	43 1/2 (1105)	14 (356)
460	DN100	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	39 5/16 (999)	9 1/4 (235)
461	DN150	PN40	DIN 2635	F316/F316L	Weld neck flange	Type C face	39 5/8 (1006)	11 13/16 (300)
462	DN100	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	39 5/16 (999)	9 1/4 (235)
463	DN150	PN40	DIN 2635	F316/F316L	Weld neck flange	Type N grooved face	39 5/8 (1006)	11 13/16 (300)
464	DN100	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	41 5/16 (1049)	10 7/16 (265)
465	DN150	PN100	DIN 2637	F316/F316L	Weld neck flange	Type E face	41 15/16 (1065)	14 (355)
466	DN100	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	41 5/16 (1049)	10 7/16 (265)

(1) Available only with Model CMF400A.

Fitting options *continued*

Models CMF400M and CMF400A *continued*

Code	Description						Dim. A	Dim. B
467	DN150	PN100	DIN 2637	F316/F316L	Weld neck flange	Type N grooved face	41 15/16 (1065)	14 (355)
470	100mm	10K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	39 5/16 (999)	8 1/4 (210)
472	100mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	39 13/16 (1011)	8 7/8 (225)
478	DN150	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	40 1/16 (1018)	11 13/16 (300)
480	DN100	PN40	EN 1092-1	F316/F316L	Weld neck flange	Form D	39 5/16 (999)	9 1/4 (235)
B89[(1)]	150mm	10K	JIS B 2220	A105 Carbon Steel	Lap joint flange	316/316L stub	39 5/8 (1007)	11 (280)
B90[(1)]	150mm	20K	JIS B 2220	A105 Carbon Steel	Lap joint flange	316/316L stub	40 1/8 (1019)	12 (305)

(1) Low volume process connection. Consult factory for lead time.

Models CMF400H and CMF400B

Code	Description						Dim. A	Dim. B
906	DN100	PN40	EN 1092-1	N06022	Weld neck flange	Form B1	39 1/4 (997)	9 1/4 (235)
907	4"	CL150	ASME B16.5	F304/F304L	Lap joint flange	N06022 stub	42 5/8 (1083)	9 (229)
908	DN100	PN100	EN 1092-1	F304/F304L	Lap joint flange	Form B2	41 1/4 (1048)	10 7/16 (265)
910	DN100	PN160	EN 1092-1	F304/F304L	Lap joint flange	Form B2	42 (1067)	10 7/16 (265)
911	4"	CL150	ASME B16.5	N06022	Weld neck flange	Raised face	40 1/8 (1019)	9 (229)
912	4"	CL300	ASME B16.5	N06022	Weld neck flange	Raised face	40 15/16 (1040)	10 (254)
913	4"	CL600	ASME B16.5	N06022	Weld neck flange	Raised face	42 5/8 (1083)	10 3/4 (273)
914	4"	CL900	ASME B16.5	N06022	Weld neck flange	Raised face	43 5/8 (1108)	11 1/2 (292)

Model CMF400P

Code	Description						Dim. A	Dim. B
437	4"	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	42 11/16 (1084)	10 3/4 (273)
438	4"	CL900	ASME B16.5	F316/F316L	Weld neck flange	Raised face	43 11/16 (1110)	11 1/2 (292)
439	4"	CL1500	ASME B16.5	F316/F316L	Weld neck flange	Raised face	44 7/16 (1129)	12 1/4 (311)
445	DN100	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	41 5/16 (1049)	10 7/16 (265)
446	DN150	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form B2	43 1/4 (1099)	14 (356)
447	DN100	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	41 5/16 (1049)	10 7/16 (265)
448	DN150	PN100	EN 1092-1	F316/F316L	Weld neck flange	Form D	43 1/4 (1099)	14 (356)
453	6"	CL600	ASME B16.5	F316/F316L	Weld neck flange	Raised face	43 1/2 (1105)	14 (356)
468	DN100	PN160	EN 1092-1	F316/F316L	Weld neck flange	Form B2	42 1/16 (1068)	10 7/16 (265)
472	100mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	39 13/16 (1011)	8 7/8 (225)
473	150mm	20K	JIS B 2220	F316/F316L	Weld neck flange	Raised face	40 1/8 (1018)	12 (305)
562	4"	CL600	ASME B16.5	A105 Carbon Steel	Lap joint flange	316/316L stub	43 11/16 (1110)	10 3/4 (273)
563	4"	CL900	ASME B16.5	A105 Carbon Steel	Lap joint flange	316/316L stub	43 11/16 (1110)	11 1/2 (292)

Ordering information

Model	Product description
	Standard models
CMFS010M	Micro Motion Coriolis ELITE sensor; 1/10 to 1/6-inch (2 to 4 mm); 316L stainless steel
CMFS010H	Micro Motion Coriolis ELITE sensor; 1/10 to 1/6-inch (2 to 4 mm); Hastelloy C-22
CMFS015M	Micro Motion Coriolis ELITE sensor; 1/6 to 1/4-inch (4 to 6 mm); 316L stainless steel
CMFS015H	Micro Motion Coriolis ELITE sensor; 1/6 to 1/4-inch (4 to 6 mm); Hastelloy C-22
CMF010M	Micro Motion Coriolis ELITE sensor; 1/10 to 1/6-inch (2 to 4 mm); 316L stainless steel
CMF010H	Micro Motion Coriolis ELITE sensor; 1/10 to 1/6-inch (2 to 4 mm); Hastelloy C-22
CMF010L	Micro Motion Coriolis ELITE sensor; 1/10 to 1/6-inch (2 to 4 mm); 304L stainless steel
CMF025M	Micro Motion Coriolis ELITE sensor; 1/4 to 1/2-inch (6 to 13 mm); 316L stainless steel
CMF025H	Micro Motion Coriolis ELITE sensor; 1/4 to 1/2-inch (6 to 13 mm); Hastelloy C-22
CMF025L	Micro Motion Coriolis ELITE sensor; 1/4 to 1/2-inch (6 to 13 mm); 304L stainless steel
CMF050M	Micro Motion Coriolis ELITE sensor; 1/2 to 1-inch (13 to 25 mm); 316L stainless steel
CMF050H	Micro Motion Coriolis ELITE sensor; 1/2 to 1-inch (13 to 25 mm); Hastelloy C-22
CMF050L	Micro Motion Coriolis ELITE sensor; 1/2 to 1-inch (13 to 25 mm); 304L stainless steel
CMF100M	Micro Motion Coriolis ELITE sensor; 1 to 2-inch (25 to 50 mm); 316L stainless steel
CMF100H	Micro Motion Coriolis ELITE sensor; 1 to 2-inch (25 to 50 mm); Hastelloy C-22
CMF100L	Micro Motion Coriolis ELITE sensor; 1 to 2-inch (25 to 50 mm); 304L stainless steel
CMF200M	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); 316L stainless steel
CMF200H	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); Hastelloy C-22
CMF200L	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); 304L stainless steel
CMF300M	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); 316L stainless steel
CMF300H	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); Hastelloy C-22
CMF300L	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); 304L stainless steel
CMF400M	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); 316L stainless steel
CMF400H	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); Hastelloy C-22
	High-pressure models
CMFS010P	Micro Motion Coriolis ELITE sensor; 1/10 to 1/6-inch (2 to 4 mm); high pressure; nickel alloy with stainless steel fittings
CMFS015P	Micro Motion Coriolis ELITE sensor; 1/6 to 1/4-inch (4 to 6 mm); high pressure; nickel alloy with stainless steel fittings
CMF010P	Micro Motion Coriolis ELITE sensor; 1/10 to 1/6-inch (2 to 4 mm); high pressure; nickel alloy with stainless steel fittings
CMF400P	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); high pressure; nickel alloy with stainless steel fittings
	High-temperature models
CMF200A	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); high temperature; 316L stainless steel
CMF200B	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); high temperature; Hastelloy C-22
CMF300A	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); high temperature; 316L stainless steel
CMF300B	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); high temperature; Hastelloy C-22
CMF400A	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); high temperature; 316L stainless steel
CMF400B	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); high temperature; Hastelloy C-22
Code	**Process Connections**
###	See process fitting options on pages 41–53.

Continued on next page

Ordering information *continued*

Code	Case options
	For all models *except* CMFS010 and CMFS015
N	Standard pressure containment
P[1]	Purge fittings (see pages 32–35)
D[2]	Rupture disks (two 400-psig [28 bar] disks)
	For models CMFS010 and CMFS015
N	Standard case (300-series stainless steel)
J	Standard case (300-series stainless steel) with mounting bracket
M	316L stainless steel case
Q	316L stainless steel case with mounting bracket
H[3]	Hygienic; 32 Ra finish (0.8 μm); 316L stainless steel case
T[3]	Hygienic; 32 Ra finish (0.8 μm); 316L stainless steel case with mounting bracket
P	Purge fitting (see page 30); standard case
U	Purge fitting (see page 30); standard case with mounting bracket
Code	**Electronics interface**
	For all models *except* Model CMFS010, Model CMFS015, and high-temperature models
0	Model 2400S transmitter
1	Extended mount Model 2400S transmitter
2	4-wire polyurethane-painted aluminum integral enhanced core processor for remote mount transmitters
3	4-wire stainless steel integral enhanced core processor for remote mount transmitters
4	4-wire polyurethane-painted aluminum integral extended mount enhanced core processor for remote mount transmitters
5	4-wire extended mount stainless steel integral enhanced core processor for remote mount transmitters
Q	4-wire polyurethane-painted aluminum integral core processor for remote mount transmitters
A	4-wire stainless steel integral core processor for remote mount transmitters
J[4]	2-wire integrally mounted Model 2200S transmitter
U[4]	2-wire extended Model 2200S transmitter
R	9-wire polyurethane-painted aluminum junction box
S	9-wire 316L stainless steel junction box
H	9-wire extended mount polyurethane-painted aluminum junction box
T	9-wire extended mount stainless steel junction box
	For high-temperature models
0	Model 2400S transmitter
2	4-wire polyurethane-painted aluminum integral enhanced core processor for remote mount transmitters
3	4-wire stainless steel integral enhanced core processor for remote mount transmitters
Q	4-wire polyurethane-painted aluminum integral core processor for remote mount transmitters
A	4-wire stainless steel integral core processor for remote mount transmitters
C	Model 1700/2700 transmitter
R	9-wire polyurethane-painted aluminum junction box
S	9-wire 316L stainless steel junction box

Continued on next page

(1) Not available with high-temperature models.

(2) Available only with Model CMF010P.

(3) Available only with process connection 321, 344, 345, or 346.

(4) Available only with calibration option Z.

Ordering information *continued*

Code	Electronics interface
	For Models CMFS010 and CMFS015
0	Model 2400S transmitter
1	Extended mount Model 2400S transmitter
2	4-wire polyurethane-painted aluminum integral enhanced core processor for remote mount transmitters
3	4-wire stainless steel integral enhanced core processor for remote mount transmitters
4	4-wire polyurethane-painted aluminum integral extended mount enhanced core processor for remote mount transmitters
5	4-wire extended mount stainless steel integral enhanced core processor for remote mount transmitters
M[(1)]	Integral FMT Filling Transmitter
N[(1)]	Integral FMT Filling Transmitter with improved surface finish (64 Ra)
J[(2)]	2-wire integrally mounted Model 2200S transmitter
U[(2)]	2-wire extended Model 2200S transmitter
Code	**Conduit connections**
	For electronics interface codes 0, 1, K, J, U, and C
A	Not applicable
	For electronics interface codes 2, 3, 4, 5, H, T, Q, and A
B	1/2-inch NPT — no gland
E	M20 — no gland
F	Brass/nickel cable gland (cable diameter 0.335 to 0.394 inches [8.5 to 10 mm])
G	Stainless steel cable gland (cable diameter 0.335 to 0.394 inches [8.5 to 10 mm])
	For electronics interface codes R and S (9-wire junction box)
A	3/4-inch NPT — no gland
H	Brass/nickel cable gland
J	Stainless steel cable gland
Code	**Approvals**
	For electronics interface codes 0, 1, M, and N
M	Micro Motion Standard (no approval)
N	Micro Motion Standard / PED compliant
2	CSA C-US (U.S.A. and Canada) Class I, Div. 2
V	ATEX — Equipment Category 3 (Zone 2) / PED compliant
3	IECEx Zone 2

Continued on next page

(1) Must be ordered with FMT Filling Transmitter. Transmitter is welded to the sensor case.

(2) Available only with calibration option Z.

Ordering information *continued*

Code	Approvals
	For electronics interface codes 2, 3, 4, and 5
M	Micro Motion Standard (no approval)
N	Micro Motion Standard / PED compliant
A	CSA C-US (U.S.A. and Canada)
Z[(1)]	ATEX – Equipment Category 2 (Zone 1) / PED compliant
6[(1)]	ATEX – Equipment Category 2 (Zone 1, IIC modified) / PED compliant; Models CMF200, CMF300, and CMF400 only
I[(1)]	IECEx Zone 1
7[(1)]	IECEx Zone 1, IIC modified; Models CMF200, CMF300, and CMF400 only
P[(1)(2)]	NEPSI
8[(1)(2)]	NEPSI, IIC modified
	For electronics interface codes J and U
M	Micro Motion Standard (no approval)
N	Micro Motion Standard / PED compliant
V	ATEX — Equipment Category 3 (Zone 2) / PED compliant
3	IECEx Zone 2
A	CSA C-US (U.S.A. and Canada)
Z	ATEX – Equipment Category 2 (Zone 1) / PED compliant
I	IECEx Zone 1
	For electronics interface codes Q, A, C, R, S, H, and T
M	Micro Motion Standard (no approval)
N	Micro Motion Standard / PED compliant
U	UL — Not available with electronics interface code C
C	CSA (Canada only) — Not available with electronics interface code C
A	CSA C-US (U.S.A. and Canada)
Z[(1)]	ATEX – Equipment Category 2 (Zone 1) / PED compliant
6[(1)]	ATEX – Equipment Category 2 (Zone 1, IIC modified) / PED compliant; Models CMF200, CMF300, and CMF400 only
I[(1)]	IECEx Zone 1
7[(1)]	IECEx Zone 1, IIC modified; Models CMF200, CMF300, and CMF400 only
P[(1)(2)]	NEPSI
8[(1)(2)]	NEPSI, IIC modified
Code	**Language**
A	Danish CE requirements document and English installation manual
D	Dutch CE requirements document and English installation manual
E	English installation manual
F	French installation manual
G	German installation manual
H	Finnish CE requirements document and English installation manual
I	Italian installation manual
J	Japanese installation manual
M	Chinese installation manual

Continued on next page

(1) Models CMF200, CMF300, and CMF400 are rated for Group IIB with standard ATEX approval code Z, IECEx approval code I, or NEPSI approval code P. The IIC modification option (approval codes 6, 7, and 8) should be used only when necessary for the specific area classification.

(2) Available only with language option M (Chinese).

Ordering information *continued*

Code	Language (continued)
N	Norwegian CE requirements document and English installation manual
O	Polish installation manual
P	Portuguese installation manual
S	Spanish installation manual
W	Swedish CE requirements document and English installation manual
C	Czech installation manual
B	Hungarian CE requirements document and English installation manual
K	Slovak CE requirements document and English installation manual
T	Estonian CE requirements document and English installation manual
U	Greek CE requirements document and English installation manual
L	Latvian CE requirements document and English installation manual
V	Lithuanian CE requirements document and English installation manual
Y	Slovenian CE requirements document and English installation manual
Code	**Calibration options**
	For all models *except* CMFS010, CMFS015, CMF010, and high-temperature models
Z (1)	0.10% mass flow and 0.0005 g/cm^3 (0.5 kg/m^3) density
D (2)	0.10% mass flow and 0.0002 g/cm^3 (0.2 kg/m^3) density
2 (2)	0.05% mass flow and 0.0005 g/cm^3 (0.5 kg/m^3) density
3 (2)	0.05% mass flow and 0.0002 g/cm^3 (0.2 kg/m^3) density
	For models CMFS010 and CMFS015
C (3)	0.10% mass flow and 0.002 g/cm^3 (2.0 kg/m^3) density
K	0.10% mass flow and 0.0005 g/cm^3 (0.5 kg/m^3) density
2	0.05% mass flow and 0.0005 g/cm^3 (0.5 kg/m^3) density
	For model CMF010
Z (1)	0.10% mass flow and 0.0005 g/cm^3 (0.5 kg/m^3) density
2	0.05% mass flow and 0.0005 g/cm^3 (0.5 kg/m^3) density
	For high-temperature models
Z	0.10% mass flow and 0.0005 g/cm^3 (0.5 kg/m^3) density
Code	**Measurement application software**
Z	No measurement application software
C (4)	Cryogenic application (includes remote core processor for direct host connection)
Code	**Factory options**
Z	Standard product
X	ETO product
Typical model number: CMF050M 313 N 2 B A E Z Z Z	

(1) For gas or cryogenic liquid applications, select calibration option Z. Mass flow accuracy on gas or cryogenic liquid is ±0.35%.

(2) Requires electronics interface codes 0–5.

(3) For gas or cryogenic liquid applications, select calibration option C. Mass flow accuracy on gas or cryogenic liquid is ±0.35%.

(4) Available only with electronics interface code R, conduit option A, and approval options M, P, or Z. Available only with Models CMF025M, CMF050M, and CMF100M. Not available with wafer process connections.

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